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THIRD EDITION

REVISED IN CONFERENCE BY

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HAMILTON WRIGHT MABIE, HENRY
VAN DYKE, NATHAN HASKELL DOLE

TWENTY VOLUMES *RICHLY ILLUSTRATED*

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FAMOUS EXPLORERS

EDITED BY

EDWIN ERLE SPARKS

VOLUME IX

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THE PATHFINDERS

BY

EDWIN ERLE SPARKS.

FEW forms of instructive literature make so strong an appeal to readers of all ages as does the story of exploration — the recital of the experiences of those who were "the first that ever burst into that unknown sea" or into an unexplored territory. It gratifies the almost universal desire to widen personal experience by visiting unknown countries and mingling with unknown peoples. If a traveller be a discoverer or explorer, one who for the first time visits and describes remote lands, additional interest is given to the recital. The explorer in a larger sense is a benefactor, since he carries the arts of civilization to those heretofore in darkness.

One thinks of the great globe swinging in intellectual darkness, with only one little white spot illuminated by the art of writing and the consequent preservation of knowledge for us. From this little circle of light, drawn about the eastern end of the Mediterranean Sea, adventurous captains in their explorations penetrated the darkness on all sides, overcoming obstacles by

their undaunted wills. Like so many busy spiders, they ran out their bright threads of discovery, to be crossed by other threads, and thus in ever increasing circles the web of the world's enlightenment grew.

Those must have been stirring times. In imagination, one follows Cyrus and his ten thousand Persians on the great advance and retreat as told by Xenophon, or penetrates with the legions of Cæsar the unknown lands which France and England now occupy. How Marco Polo must have stared when with his brothers he first saw the pig-tailed, almond-eyed Chinese. What will power Columbus exerted in overcoming the cries of his sailors, and holding the prows of his caravels straight into the West. No doubt Humboldt, when he was cutting paths through the tropical undergrowth of South America and was making scientific observations on the lofty mountain peaks, dreamed of the civilization which was to spring up in those countries. Speke and Livingstone in Africa were simply scouts of future empires. Sir John Franklin, Nansen, and others, who have endeavored to wrest the secret of the North from mother Nature, may not bring such beneficent results; but their courage and endurance must excite admiration so long as blood can be stirred by stories of daring.

To participate in those glorious deeds is not given to us of a later date; but the agency of letters has preserved the stories of them for our enduring delight.

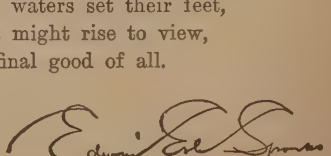
What pleasure to a child to read the experiences of Cæsar as he daily described them amidst all the duties and dangers of his campaigns, or to read in his own words of the perplexity of Columbus when first he noted the deflection of the magnetic needle in his compass. It is even a pleasure to read how men like Layard and Schliemann have dug in the earth among ruins of past empire to add to the world's information.

To attempt to show the knowledge to be gained from reading about explorers, and especially to point out the kindred topics in which interest would be aroused, would mean to write a general history of the world. In the history of every country explorers have been the prime figures. They have always been the heralds of territorial or commercial expansion. The spies who brought back grapes and pomegranates as samples of the land of Canaan were explorers preparing the way for territorial occupation. Upon the Ptolemy map of the known world, the voyages of Columbus caused a new world to be charted. How could the beneficent expansion of England have been possible without her discoverers and explorers? The French-Indian war in America, which trained the English colonists for the later Revolutionary war, was a struggle for the possession of the heart of the continent. Yet that struggle would never have arisen if Cartier and the Cabots had not explored certain parts of the Atlantic coast, thus giving their respective

countries a title by discovery. Likewise the explorations of the Spanish in the unknown South, disputed by the English, led to three centuries of intermittent warfare between the Spanish- and English-speaking people, which ended in the Spanish being driven from the western world they had conquered.

Two hardy captains of the United States army, Lewis and Clark, in 1803 began to ascend the Missouri River. Four thousand miles they penetrated the continent amidst great hardships until the Pacific Ocean lay before them. Thus they secured for posterity the fertile northwest, which so handsomely rounds out the domain of the United States. Explorers not only gain territory and change maps. They set up and tear down empires; they rend asunder peaceful nations, and precipitate warfare through the land hunger which they beget. On the other hand, they point out new possibilities for mankind; they call into knowledge new products and furnish fresh opportunity for inventive genius; and they arouse the highest ambitions of evangelization and philanthropy.

What faith in man's finalty is begot
To think on those who opened hidden lands,
Or those who on the waters set their feet,
That drownèd worlds might rise to view,
And further on the final good of all.



A BOOK OF FAMOUS EXPLORERS

THE EXPLORATION OF CANAAN

(From the Book of Numbers.)

AND afterward the people journeyed from Hazeroth, and encamped in the wilderness of Paran. And Jehovah spake unto Moses, saying, Send thou men, that they may spy out the land of Canaan, which I give unto the children of Israel: of every tribe of their fathers shall ye send a man, every one a prince among them. And Moses sent them from the wilderness of Paran according to the commandment of Jehovah: all of them men who were heads of the children of Israel.

And Moses sent them to spy out the land of Canaan, and said unto them, Get you up this way by the South, and go up into the hill-country: and see the land, what it is; and the people that dwell therein, whether they

are strong or weak, whether they are few or many; and what the land is that they dwell in, whether it is good or bad; and what cities they are that they dwell in, whether in camps, or in strongholds; and what the land is, whether it is fat or lean, whether there is wood therein, or not. And be ye of good courage, and bring of the fruit of the land. Now the time was the time of the first ripe grapes.

So they went up, and spied out the land from the wilderness of Zin unto Rehob, to the entrance of Hamath. And they went up by the South, and came unto Hebron; and Ahiman, Sheshai, and Talmai, the children of Anak, were there. (Now Hebron was built seven years before Zoan in Egypt.)

And they came unto the valley of Eshcol, and cut down from thence a branch with one cluster of grapes, and they bare it upon a staff between two; *they brought* also of the pomegranates, and of the figs. That place was called the valley of Eshcol, that is, a cluster, because of the cluster which the children of Israel cut down from thence.

And they returned from spying out the land at the end of forty days. And they went and came to Moses and to Aaron, and to all the congregation of the children of Israel, unto the wilderness of Paran, to Kadesh; and brought back word unto them, and unto all the congregation, and showed them the fruit of the land. And they told him, and said, We came unto the land whither thou sentest us; and surely it floweth with milk and honey; and this is the fruit of it. Howbeit the people that dwell in the land are strong, and the cities are fortified, *and* very great: and moreover we saw the children of

"And Showed Them The Fruit of the Land."

Anak there. Amelik dwelleth in the land of the South; and the Hittite, and the Jebusite, and the Amorite, dwell in the hill-country; and the Canaanite dwelleth by the sea, and along by the side of the Jordan.

And Caleb stilled the people before Moses, and said, Let us go up at once, and possess it; for we are well able to overcome it. But the men that went up with him said, We are not able to go up against the people; for they are stronger than we. And they brought up an evil report of the land which they had spied out unto the children of Israel, saying, The land, through which we have gone to spy it out, is a land that eateth up the inhabitants thereof; and all the people that we saw in it are men of great stature. And there we saw the Nephilim or giants, the sons of Anak, who come of the Nephilim: and we were in our own sight as grasshoppers, and so we were in their sight.

And all the congregation lifted up their voice, and cried; and the people wept that night. And all the children of Israel murmured against Moses and against Aaron: and the whole congregation said unto them, Would that we had died in the land of Egypt! or would that we had died in this wilderness! And wherefore doth Jehovah bring us unto this land, to fall by the sword? Our wives and our little ones will be a prey: were it not better for us to return into Egypt?

And they said to one another, Let us make a captain, and let us return into Egypt. Then Moses and Aaron fell on their faces before all the assembly of the congregation of the children of Israel. And Joshua the son of Nun and Caleb the son of Jephunneh, who were of them that spied out the land, rent their clothes:

and they spake unto all the congregation of the children of Israel, saying, The land, which we passed through to spy it out, is an exceeding good land.

If Jehovah delight in us, then he will bring us into this land, and give it unto us; a land which floweth with milk and honey. Only rebel not against Jehovah, neither fear ye the people of the land; for they are bread for us: their defence is removed from over them, and Jehovah is with us: fear them not.

DISCOVERY OF THE GIGANTIC HEAD IN THE PALACE OF NIMROD

(From Nineveh and its Remains.)

By AUSTEN HENRY LAYARD.

IN a few hours the earth and rubbish had been completely removed from the face of the slab, no part of which had been injured. The ornaments delicately graven on the robes, the tassels and fringes, the bracelets and armlets, the elaborate curls of the hair and beard, were all entire. The figures were back to back, and furnished with wings. They appeared to represent divinities, presiding over the seasons, or over particular religious ceremonies. The one whose face was turned to the East carried a fallow deer on his right arm, and in his left hand a branch bearing five flowers. Around his temples was a fillet, adorned in front with a rosette. The other held a square vessel, or basket, in the left hand, and an object resembling a fir cone in the right. On his head he wore a rounded cap, at the base of which was a horn. The garments of both, consisting of a stole falling from the shoulders to the ankles, and a short tunic underneath descending to the knee, were richly and tastefully decorated with

embroideries and fringes, whilst the hair and beard were arranged with study and art. Although the relief was lower, yet the outline was perhaps more careful, and true, than that of the Assyrian sculptures of Khorsabad. The limbs were delineated with peculiar accuracy, and the muscles and bones faithfully, though somewhat too strongly, marked. An inscription ran across the sculpture.

To the west of this slab, and fitting to it, was a corner-stone ornamented with flowers and scroll-work, tastefully arranged, and resembling in detail those graven on the injured tablet, near the entrance of the South-west building. I recognized at once from whence many of the sculptures, employed in the construction of that edifice, had been brought; and it was evident that I had at length discovered the earliest palace of Nimrod.

The Eagle-Headed Figure.

The corner-stone led me to a figure of singular form. A human body, clothed in robes similar to those of the winged men on the previous slab, was surmounted by the head of an eagle or of a vulture. The curved beak, of considerable length, was half open, and

displayed a narrow pointed tongue, which was still covered with red paint. On the shoulders fell the usual curled and bushy hair of the Assyrian images, and a comb of feathers rose on the top of the head. Two wings sprang from the back, and in either hand was the square vessel and fir cone.

On all these figures paint could be faintly distinguished, particularly on the hair, beard, eyes, and sandals. The slabs on which they were sculptured had sustained no injury, and could be without difficulty packed and removed to any distance. There could no longer be any doubt that they formed part of a chamber, and that, to explore it completely, I had only to continue along the wall, now partly uncovered.

On the morning following these discoveries, I rode to the encampment of Sheikh Abd-ur-rahman, and was returning to the mound, when I saw two Arabs of his tribe urging their mares to the top of their speed. On approaching me they stopped. "Hasten, O Bey," exclaimed one of them, "hasten to the diggers, for they have found Nimrod himself. Wallah, it is wonderful, but it is true! we have seen him with our eyes. There is no God but God"; and both joining in this pious exclamation, they galloped off, without further words, in the direction of their tents.

On reaching the ruins I descended into the new trench and found the workmen, who had already seen me, as I approached, standing near a heap of baskets and cloaks. Whilst Awad advanced, and asked for a present to celebrate the occasion, the Arabs withdrew the screen they had hastily constructed, and disclosed an enormous human head sculptured in full out of the

alabaster of the country. They had uncovered the upper part of the figure, the remains of which was still buried in the earth. I saw at once that the head must belong to a winged lion or bull, similar to those of Khorsabad and Persepolis. It was in admirable preservation. The expression was calm, yet majestic, and the outline of the features showed a freedom and knowledge of art, scarcely to be looked for in the works of so remote a period. The cap had three horns, and, unlike that of the human-headed bulls hitherto found in Assyria, was rounded and without ornament at the top.

Discovery of the Gigantic Head.

I was not surprised that the Arabs had been amazed and terrified at this apparition. It required no stretch of imagination to conjure up the most strange fancies. This gigantic head, blanched with age, thus rising from the bowels of the earth, might well have belonged to one of those fearful beings which are pictured in the traditions of the country as appearing to mortals, slowly ascending from the regions below. One of the workmen, on catching the first glimpse of the monster, had thrown down his basket and run off towards Mosul as fast as his legs could carry him. I learnt this with regret, as I anticipated the consequences.

Whilst I was superintending the removal of the earth, which still clung to the sculpture, and giving directions for the continuation of the work, a noise of horsemen was heard, and presently Abd-ur-rahman, followed by half his tribe, appeared on the edge of the trench. As soon as the two Arabs had reached the tents, and published the wonders they had seen, every one mounted his mare and rode to the mound, to satisfy himself of the truth of these inconceivable reports. When they beheld the head they all cried out together, "There is no God but God; and Mohammed is his Prophet!" It was some time before the Sheikh could be prevailed upon to descend into the pit, and convince himself that the image he saw was of stone. "This is not the work of men's hands," exclaimed he, "but of those infidel giants of whom the Prophet, peace be with him! has said, that they were higher than the tallest date tree; this is one of the idols which Noah, peace be with him! cursed before the flood." In this opinion, the result of a careful examination, all the bystanders concurred.

I now ordered a trench to be dug due south from the head, in the expectation of finding a corresponding figure, and before night-fall reached the object of my search about twelve feet distant. Engaging two or three men to sleep near the sculptures, I returned to the village and celebrated the day's discovery by a slaughter of a sheep, of which all the Arabs near partook. As some wandering musicians chanced to be at Salamiyah, I sent for them, and dances were kept up during the greater part of the night. On the following morning Arabs from the other side of the Tigris, and

the inhabitants of the surrounding villages congregated on the mound. Even the women could not repress their curiosity, and came in crowds, with their children, from afar. My Cawass was stationed during the day in the trench into which I could not allow the multitude to descend.

Emblem of the Deity.

THE WINGED HUMAN-HEADED LIONS

(From Nineveh and Its Remains.)

By AUSTEN HENRY LAYARD.

I ASCERTAINED by the end of March the existence of a second pair of winged human-headed lions, differing from those previously discovered in form, the human shape being continued to the waist and furnished with arms. In one hand each figure carried a goat or stag, and in the other, which hung down by the side, a branch of three flowers. They formed a northern entrance into the chamber of which the lions previously described were the southern portal. I completely uncovered the latter, and found them to be entire. They were about twelve feet in height, and the same number in length. The body and limbs were admirably portrayed; the muscles and bones, although strongly developed to display the strength of the animal, showed at the same time a correct knowledge of its anatomy and form. Expanded wings sprung from the shoulder and spread over the back; a knotted girdle, ending in tassels, encircled the lions. These

sculptures, forming an entrance, were partly in full and partly in relief. The head and fore-part, facing the chamber, were in full; but only one side of the rest of the slab was sculptured, the back being placed against the wall of sun-dried bricks. That the spectator might have both a perfect front and side view of the figures, they were furnished with five legs; two were carved on the end of the slab to face the chamber, and three on the side. The relief of the body and three limbs was high and bold, and the slab was covered, in all parts not occupied by the image, with inscriptions in the cuneiform character. These magnificent specimens of Assyrian art were in perfect preservation; the most minute lines in the details of the wings and in the ornaments had been retained with their original freshness. Not a character was wanting in the inscriptions.

I used to contemplate for hours these mysterious emblems, and muse over their intent and history. What more noble forms could have ushered the people into the temple of their gods? What more sublime images could have been borrowed from nature, by men who sought, unaided by the light of revealed religion, to embody their conception of the wisdom, power, and ubiquity of a Supreme Being? They could find no better type of intellect and knowledge than the head of the man; of strength, than the body of the lion; of rapidity of motion, than the wings of the bird. These winged human-headed lions were not idle creations, the offspring of mere fancy; their meaning was written upon them. They had awed and instructed races which flourished three thousand years ago. Through the portals which they guarded, kings, priests, and warriors had

borne sacrifices to their altars, long before the wisdom of the East had penetrated to Greece, and had furnished its mythology with symbols long recognized by the Assyrian votaries. They may have been buried, and their existence may have been unknown, before the foundation of the eternal city. For twenty-five centuries they had been hidden from the eye of man,

Winged Human-Headed Lion.

and they now stood forth once more in their ancient majesty. But how changed was the scene around them! The luxury and civilization of a mighty nation had given place to the wretchedness and ignorance of a few half-barbarous tribes. The wealth of temples, and the riches of great cities, had been succeeded by ruins and shapeless heaps of earth. Above the spacious hall

in which they stood, the plough had passed and the corn now waved. Egypt has monuments no less ancient and no less wonderful; but they have stood forth for ages to testify her early power and renown; whilst those before me had but now appeared to bear witness in the words of the prophet, that once "the Assyrian was a cedar in Lebanon with fair branches and with a shadowing shroud of a high stature; and his top was among the thick boughs — his height was exalted above all the trees of the field, and his boughs were multiplied, and his branches became long, because of the multitude of waters when he shot forth. All the fowls of heaven made their nests in his boughs, and under his branches did all the beasts of the field bring forth their young, and under his shadow dwelt all great nations;" for now is "Nineveh a desolation and dry like a wilderness, and flocks lie down in the midst of her; all the beasts of the nations, both the cormorant and bittern, lodge in the upper lintels of it; their voice sings in the windows; and desolation is in the thresholds."

Emblem of the Deity.

THE GREAT TOWER OF ILIUM

(From Troy and its Remains.)

By Dr. HENRY SCHLIEMANN.

REFERRING to my report of the 13th of last month, I am glad now to be able to mention that, in excavating the depths of the temple, I found a wall 10 feet high and 6½ feet thick, which, however, has at one time been much higher, as the quantity of stones lying beside it seem to prove. It is at a distance of 131 feet from the declivity of the hill, and at a perpendicular depth of 34 feet. This wall is composed of large stones joined with earth, and, as is attested by the layers of débris which extend in an oblique direction below it, it was built originally upon the steep slope of the hill. Hence, since the erection of the wall, the hill at this point has increased 131 feet in breadth and 44¼ feet in height by the accumulation of débris. I have not yet been able to ascertain whether this wall was the foundation of an ancient Trojan temple, or whether it belongs to the enclosing wall, which,

says Homer, was built by Poseidon and Apollo. In the latter case, it would appear strange that it is only $6\frac{1}{2}$ feet thick, and was never higher than $16\frac{1}{2}$ feet, for it must be remembered that the hill has a steep incline on the north side, and that it is very precipitous at this part especially.

Below the wall I found five of those splendid, brilliant, black, flat Trojan terra-cottas, which are so like a wheel that they can be distinguished at a glance from all the others. One has six suns in the circle round the central sun; another has four stars forming a cross round the sun; a third has three double rising suns in the circle round the central sun; a fourth has four rising suns with five lines, forming a cross round the sun; a fifth has three triple rising suns round the sun. I also found below the wall a number of fragments of black Trojan vessels, which are directly recognized by their fineness, and by the long single or double rings on the sides.

The wall proceeds from west to east, and consequently obstructs my path, and I cannot remove the débris from behind it without considerably widening my trench, which would be a gigantic piece of work between the enormous earthen walls. In continuing my trench in a horizontal direction, I have arrived at exactly $6\frac{1}{2}$ feet below this wall. It is very interesting from a perpendicular depth of $15\frac{1}{2}$ metres, or $51\frac{1}{3}$ feet, to see this mass of primeval Trojan masonry in a depth of $13\frac{1}{2}$ to $10\frac{1}{2}$ metres ($44\frac{1}{4}$ to 34 feet), and the wall beside it which was built by Lysimachus, and is almost immediately below the surface, standing as it were in mid-air.

On the south side of the hill where, on account of the slight natural slope, I had to make my great trench with an inclination of 14 degrees, I discovered, at a distance of 197 feet from the declivity, a Tower 12 metres, or 40 feet, thick, which likewise obstructs my path, and appears to extend to a great length. I am busily engaged in making large excavations to the right and left of it, in order to lay bare the whole; for, independently of the mighty interest attached to this Tower, I must necessarily dig a channel to allow the waters of the winter rains to run off, as they would otherwise rush violently down from my platform (197 feet in length, and with a considerable slope) against the Tower and injure it. I have uncovered the Tower on the north and south sides along the whole breadth of my trench, and have convinced myself that it is built on the rock at a depth of 14 metres, or 46½ feet.

Objects Found in the Great Tower of Ilium.

1. Curious Terra-cotta Vessel in the Shape of a Mole.
2. A Sceptre-handle of the finest Crystal.
3. Vase Cover with a human Face.
4, 5. Moulds of Mica-schist, for casting Metal Instruments.
6. A Trojan Dish with side Rings and Plates turned by the Potter.
7, 8, 9. Terra Cotta Vases.

An elevated mass of calcareous earth 65½ feet broad

and 16½ feet high rests upon the north side of the Tower, and is evidently composed of the rubbish which had to be removed in order to level the rock for building the Tower upon it. I have of course pierced this hillock, and have convinced myself that the north side of the Tower, 16½ feet above the rock, does not consist of masonry, but of large blocks of stone lying loosely upon one another, and that only the upper part, about a yard high, consists of actual masonry. This hillock, having the form of a rampart, thus serves to consolidate the north side of the Tower, and renders it possible to ascend to the top without steps. The south side of the Tower, looking out upon the Plain, consists of very solid masonry, composed of blocks of limestone joined with earth, some of the stones being hewn, others not. This south side of the Tower rises from the rock at an angle of 75°.

None but those who have been present at these works can have any idea of the enormous difficulties connected with making excavations 46½ feet deep on the right and left of the Tower, where the débris has to be carried off to a distance of more than 262 feet. At this great distance it is very fatiguing to work with wheelbarrows and man-carts; so I now keep seven carts drawn by horses, which I find a very great relief.

The Tower is at present only 6 metres (20 feet) high, but the nature of its surface, and the masses of stone lying on both sides, seem to prove that it was at one time much higher. For the preservation of what remains we have only to thank the ruins of Troy, which entirely covered the Tower as it now stands. It is probable that after the destruction of Troy much more

of it remained standing, and that the part which rose above the ruins of the town was destroyed by the successors of the Trojans, who possessed neither wall nor fortifications. The western part of the Tower, so far as it is yet uncovered, is only from 121 to 124 feet distant from the steep western slope of the hill; and, considering the enormous accumulation of débris, I believe that the Tower once stood on the western edge of the Acropolis, where its situation would be most interesting and imposing; for its top would have commanded not only a view of the whole Plain of Troy, but of the sea with the islands of Tenedos, Imbros, and Samothrace. There is not a more sublime situation in the area of Troy than this, and I therefore presume that it is the "Great Tower of Ilium" which Andromache ascended because "she had heard that the Trojans were hard pressed and that the power of the Achæans was great." After having been buried for thirty-one centuries, and after successive nations have built their houses and palaces high above its summit during thousands of years, this Tower has now again been brought to light, and commands a view, if not of the whole Plain, at least of the northern part and of the Hellespont. May this sacred and sublime monument of Greek heroism forever attract the eye of those who sail through the Hellespont! May it become a place to which the inquiring youth of all future generations shall make pilgrimage and fan their enthusiasm for knowledge, and above all for the noble language and literature of Greece! May it be an inducement speedily and completely to lay bare the walls of Troy, which must necessarily be connected with this Tower, and most probably also with

the wall laid open by me on the north side, to uncover which is now a very easy matter.

The expenses of excavating Ilium are, however, too great for private means, and I hope that a company will be formed, or that some government will decide to continue my excavations, so that I may proceed to the excavation of the acropolis of Mycenæ. Meanwhile I shall continue the excavations at my own expense, but I shall in future confine myself to gradually uncovering the large surrounding walls, which are sure to be in a more or less good state of preservation at a great depth below the city wall built by Lysimachus.

Before I had seen even the smallest ruins of walls belonging to Ilium, I repeatedly maintained in my reports that the whole city was built (as it is now proved by the Wall and the Tower to have been) of stones joined with earth. That this style of building, if not more ancient, is at least just as ancient as the so-called cyclopean, is proved by the walls and houses of Thera (Santorin) and Therassia, which are built in the same way, and which, as is well known, were discovered beneath three layers of volcanic ashes 68 feet thick. These ashes were, however, thrown up by a central volcano, which must have been at least 3800 feet high, and which, as is generally supposed, sank into the sea at latest 1500 years before Christ.

A STREET IN THE PERGAMUS

(From Troy and Its Remains.)

By Dr. HENRY SCHLIEMANN.

A Vase From Priam's Palace.

THIS beautifully paved street leads me to conjecture that a grand building must at one time have stood at the top of it, at a short distance on the north-east side; and therefore, seven days ago when the street was discovered, I immediately set one hundred men to dig down the north-eastern ground lying in front it; this cutting I have made 78½ feet long, 78½ feet broad, and 33 feet deep. The removal of these 7,600 cubic yards of huge masses of hard débris and stones is rendered much easier by the fact that it joins my last year's great cutting, which runs quite horizontally from the northern declivity as far as the Tower, and is therefore very well adapted for the use of man-carts. In order to extract from this excavation all the objects of the greatest use to archæology, I am having the walls made perpendicular, as in fact I have had them made in almost all of the other cuttings. As the work of removing this gigantic block of earth is carried on both from above and from below,

I confidently hope to have finished it in twenty days' work.

In this great bank of earth there are three curious walls, built one above another, of small stones joined with earth. They have been built at very different periods, and even the uppermost and latest of the three, as is clear from the material, must be considerably older than the foundation of the Greek colony about the year 700 B.C. This uppermost wall is about 5 feet thick, built up from a depth of $11\frac{1}{2}$ feet to within $1\frac{3}{4}$ foot of the surface, a circumstance which I do not at all understand; for, as the ruins of the Greek colony reach down to the depth of $6\frac{1}{2}$ feet, the wall must, for many centuries, have stood high above the earth. Still the Greeks may have used it as a foundation for a building, and it may thus have been preserved. Below this wall there is a stratum of earth $11\frac{1}{2}$ inches thick; and then comes the second wall, projecting about $11\frac{1}{2}$ inches, and $6\frac{1}{2}$ feet high; and this again rests upon another and much older wall. The last runs in an oblique line in a south-western direction parallel with the Tower-road, and furnishes a second proof that the surface of the hill, which is now quite horizontal here, did not slope down very abruptly towards the Plain at this part.

Thus the opinion which I have previously expressed, that only the first inhabitants of this hill had walls and fortifications, is now proved to be erroneous. For these three walls, which at one time stood at the edge of the declivity, and the three which I cut through at the south-east side of the hill, can only have been walls of fortification, and they evidently belong to the

various tribes who inhabited this locality after the destruction of the first nation up to the foundation of the Greek colony.

As my further excavations have shown, at a depth of 8 metres (26 feet), immediately below the Temple of Athena, and at a distance of 131 feet from the above-mentioned street, a large wall runs out from the Tower in a southern direction. I have had $6\frac{1}{2}$ feet of this wall laid bare to the south. But how far it extends in this direction cannot be ascertained without making new and enormous excavations. It is also impossible for me to ascertain its breadth without breaking down the curious pre-Hellenic house. It also appears to me that the Tower ends here, for in my investigations at the foot of that ancient house I no longer found any trace of it. Instead of it I came upon very ancient houses, the walls of which, still partially covered with the débris of a terrible conflagration, which has so completely destroyed everything that was in the rooms, that we only occasionally find charred fragments of pottery among the red wood-ashes with which the spaces are filled. Curiously enough we again find, below these very ancient houses, other house-walls which must certainly be older; and these too show indications of having been exposed to a terrible heat. In fact, the labyrinth of very ancient house-walls, built one above another, and found in the depths of the Temple of Athena erected by Lysimachus, is unique, and presents the archæologist with the richest materials for his investigations. But what is more inexplicable to me about this labyrinth of walls is a wall of fortification, $11\frac{3}{4}$ feet high, running through it

from W.N.W. to E.S.E. This is likewise built of stone joined with earth, and is 6 feet broad at the top and 12 feet broad at the foot: it does not stand directly upon the primary rock, and was not built till the rock had gradually become covered with a layer of earth $1\frac{3}{4}$ foot in thickness. It appears, therefore, to be somewhat less ancient than the Great Tower, which stands directly upon the primary rock. Running parallel with this wall of fortification, only $2\frac{1}{2}$ feet from it, and at the same depth, there is a wall 2 feet high, which is likewise built of stones joined with earth.

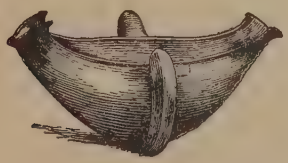
The room at the greatest depth which I have excavated is 10 feet high and $11\frac{1}{4}$ feet broad; but it may have been higher; its length I have not yet ascertained. One of the compartments of the uppermost houses, below that Temple of Athena, and belonging to the pre-Helenic period, appears to have been used as a wine-merchant's cellar or a magazine, for in it there are nine enormous earthen jars of various forms, about $5\frac{3}{4}$ feet high, and $4\frac{3}{4}$ feet across, their mouths being from $29\frac{1}{2}$ to $35\frac{1}{4}$ inches broad. Each of these earthen jars has four handles $3\frac{3}{4}$ inches broad, and the clay of which they are made has the enormous thickness of $2\frac{1}{4}$ inches. Upon the south side of these jars I found a wall 26 feet in extent and ten feet high,

Wine Cellar.

built of sun-dried bricks, which, however, had really become burnt bricks through the conflagration. This wall, which likewise appears to me to be a fortification, and very thick, I have had broken down to the perpendicular line of the foundations of the Temple of Athena.

I am in great fear lest the Turks should make off with the large stone altar, the upper part of which forms a crescent, to use it for building a minaret in the village of Chiplak; therefore, without moving it from its place, I shall have it carefully split in two, so that it will be useless for building purposes. This stone and its pedestal are daubed over with a white crust of clay, which upon the pedestal is nearly an inch thick.

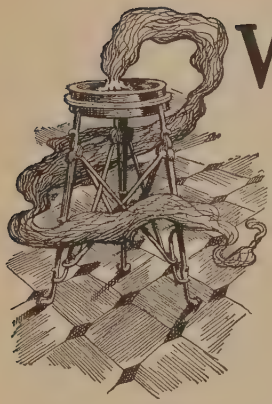
I have continued the excavation on the south-east side of the Pergamus, and I have found that the great wall, which I regarded as a continuation of the Tower, is part of a very ancient and large wall of enclosure.



DISCOVERIES IN POMPEII

(From Pompeii.)

By THOMAS H. DYER, LL.D.



WHEN Vesuvius first showed signs of the coming storm the air was still, as we learn from the description of Pliny, and the smoke of the mountain rose up straight, until the atmosphere would bear it no higher, and then spread on all sides into a canopy, suggesting to him the idea of an enormous pine tree.

After this a wind sprung up from the west, which was favorable to carry Pliny from Misenum to Stabiæ, but prevented his return. The next morning probably it veered something to the north, when, in the younger Pliny's words, a cloud seemed to descend upon the earth, to cover the sea, and hide the Isle of Capreæ from his view. The ashes are said by Dion Cassius to have reached Egypt, and in fact a line drawn south-east from Vesuvius would pass very near Pompeii, and cut Egypt. It was probably at this moment that the hail of fire fell thickest at Pompeii, at daybreak on the second morning, and if

any had thus long survived the stifling air and torrid earth which surrounded them, their misery probably was at this moment brought to a close. The villa of which we speak lay exactly between the city and the mountain, and must have felt the first, and, if there were degrees of misery, where all perished alike, the worst effects of this fearful visitation.

Fearful is such a visitation in the present day, even to those who crowd to see an eruption of Vesuvius as they would to a picture-gallery or an opera: how much more terrible, accompanied by the certainty of impending death, to those whom neither history nor experience had familiarized with the most awful phenomenon presented by nature.

At this, or possibly at an earlier moment, the love of life proved too strong for the social affections of the owner of the house. He fled, abandoning to their fate a numerous family, and a young and beautiful daughter, and bent his way, with his most precious movables, accompanied only by a single slave, to the sea, which he never reached alive. His daughter, two children, and other members of his family and household sought protection in the subterranean vaults, which, by the help of the wine-jars already stored there, and the provisions which they brought down with them, they probably considered as sufficient refuge against an evil of which they could not guess the full extent. It was a vain hope; the same fate awaited them all by different ways. The strong vaults and narrow openings to the day protected them, indeed, from the falling cinders; but the heat, sufficient to char wood, and volatilize the more subtle part of the

ashes, could not be kept out by such means. The vital air was changed into a sulphurous vapor, charged with burning dust. In their despair, longing for the pure breath of heaven, they rushed to the door, already choked with scoriæ and ruins, and perished in agonies on which the imagination does not willingly dwell.

This the reader will probably be inclined to think might do very well for the conclusion of a romance, but why invent such sentimental stories to figure in a grave historical account? It is a remarkable instance, perhaps the strongest which has yet occurred, of the peculiar interest which the discoveries at Pompeii possess, as introducing us to the homes, nay, to the very persons of a long-forgotten age, that every circumstance of this tale can be verified by evidence little less than conclusive. Beside the garden gate, two skeletons were found; one presumed to be the master, and in his hand the key of that gate, and near him were about a hundred gold and silver coins; the other, stretched beside some silver vases, was probably a slave charged with the transport of them. When the vaults beneath a room were discovered at the foot of a staircase, the skeletons of eighteen adult persons, a boy, and an infant were found huddled up together, unmoved during seventeen centuries since they sank in death. They were covered by several feet of ashes of extreme fineness, evidently slowly borne in through the vent-holes, and afterwards consolidated by damp. The substance thus formed resembles the sand used by metal founders for castings, but is yet more delicate, and took perfect impressions of everything on which it lay. Unfortunately this property was not observed

until almost too late, and little was preserved except the neck and breast of a girl, which are said to display extraordinary beauty of form. So exact is the impression, that the very texture of the dress in which she was clothed is apparent, which by its extraordinary fineness evidently shows that she had not been a slave, and may be taken for the fine gauze which Seneca calls woven wind. On other fragments the impression of jewels worn on the neck and arms is distinct, and marks that several members of the family here perished. The jewels themselves were found beside them, comprising, in gold, two necklaces, one set with blue stones, and four rings containing engraved gems. Two of the skeletons belonged to children, and some of their blond hair was still existent; most of them are said to have been recognized as female. Each sex probably acted in conformity to its character, the men trusting to their own strength to escape, the women waiting with patience the issue of a danger from which their own exertions could not save them.

In the same vault bronze candelabra, and other articles, jewels, and coins were found. Amphoræ were also found ranged against the wall, in some of which the contents, dried and hardened by time, were still preserved. Archæologists, it is said, pretend to recognize in this substance the flavor of the rich, strong wine for which the neighborhood of Vesuvius is celebrated.

EXPLORING AN ANCIENT MEXICAN PALACE

(From Ancient Cities of the New World.)

By DÉSIRÉ CHARNAY.

Désiré Charnay.

WHILST casting about where to begin I noticed parts of walls, broken cement and terraces, north of the river, when forthwith we cleared away the rubbish until we reached the floor, following the walls, corners, and openings of the various apartments, as we had done at Tula; and when three days later, the engineer, Mr. P. Castro, joined us, ten rooms, forming part of the house, had been unearthed. He was so surprised at our success that, stopping short, he exclaimed: "Why, it is our Tula palace over again!"

And so it was — inner court, apartments on different levels, everything as we had found before, save that here the rooms were much larger and most supported by pillars; one of these chambers measured forty-nine feet on one side, that is seven hundred and thirty-two feet in circumference. The walls, nearly six feet seven inches thick, are built of stone and mortar, incrusted

with deep cement, sloping up about three feet and terminating perpendicularly. The centre of the room is occupied by six pillars, on which rose stone, brick, or wood columns bearing the roof.

This is undoubtedly a palace, and these are the reception rooms; the sleeping apartments were behind; unfortunately they lie under cultivated ground covered with Indian corn, so we are not permitted to disturb them. In the large room we observed small stone

Ruins of a Teotihuacan Palace.

rings fixed to the wall, and on each side of the entrance, also fixed to the wall, two small painted slabs. What had been their use? To support lights at night? But how was that possible? For even now the only lights the natives use are ocotes, pieces of resinous wood, whilst the slabs bear no traces of smoke. I had, it is true, met in the course of my excavations with terra-cotta objects which might have been taken for candlesticks, but to which I had attached no importance,

when I suddenly remembered a passage in Sahagun bearing on the subject: "The chandler who knows how to do his work first bleaches, cleans, and melts the wax, and when in a liquid state he pours it on a wick and rolls it between two slabs; he sometimes puts a layer of black wax within a white layer," etc. My first supposition had been right.

Here also the floors and walls are coated with mortar, stucco, or cement, save that in the dwellings of the rich, necessarily few, they are ornamented with figures, as principal subject, with a border like an Aubusson carpet. The colors are not all effaced, red, black, blue, yellow, and white, are still discernible; a few examples of these frescoes are to be seen in the Trocadéro. I am convinced that numerous treasures might be brought to light were regular excavations to be made, but the Mexican Government, which would have most interest in such a work, does not seem to care to undertake it.

Leaving my men under the direction of Colonel Castro, I return to the "Path of Death," composed of a great number of small mounds, Tlateles, the tombs of great men. They are arranged symmetrically in avenues terminating at the sides of the great pyramids, on a plain of some six hundred and twenty feet to nine hundred and seventy-five feet in length; fronting them are cemented steps, which must have been used as seats by the spectators during funeral ceremonies or public festivities. On the left, amidst a mass of ruins, are broken pillars, said to have belonged to a temple; the huge capitals have some traces of sculpture. Next comes a quadrangular block, of which a cast is to be found in the main gallery of the Trocadéro.

In the course of my excavations I had found now and again numerous pieces of worked obsidian, precious stones, beads, etc., within the circuit of ants' nests, which these busy insects had extracted from the ground in digging their galleries; and now on the summit of the lesser pyramid I again came upon my friends, and among the things I picked out of their nests was a perfect earring of obsidian, very small, and as thin as a sheet of paper. It is not so curious as it seems at first, for we are disturbing a ground formed by fifty generations.

Terra-Cotta Masks and Heads.

Glass does not seem to have been known to the Indians, for although Tezcatlipoca was often figured with a pair of spectacles, they may only have been figurative ones like those of the manuscripts, terra-cotta, or *bassi-relievi*, for there is nothing to show that they had any idea of optics.

I now went back to my men, when to my great delight I found they had unearthed two large slabs showing the entrance of two sepulchres; they were the first I had yet found, and considering them very important, I immediately telegraphed to Messrs. Chavero and Berra, both of whom are particularly interested in American archæology. I expected to see them come by the very next train, to view not only the tombstones, but also

the palace, which attracted a great many visitors; but to my surprise one sent word that he had a headache, whilst the other pleaded a less poetic ailment. . . .

One of the slabs closed a vault, and the other a cave with perpendicular walls; we went down the former by a flight of steps, in fairly good condition, yet it was a long and rather dangerous affair, for we were first obliged to demolish a wall facing us, in which we found a skull, before we could get to the room which contained the tombs.

The vases within them are exactly like those we found in the plaza, except that one is filled with a fatty substance — like burnt flesh — mixed with some kind of stuff, the woof of which is still discernible, besides beads of serpentine, bones of dogs and squirrels, knives of obsidian, twisted by the action of fire. We know from Sahagun that the dead were buried with their clothes and their dogs to guide and defend them in their long journey: "When the dead were ushered into the presence of the king of the nether world, Mictlanteculti, they offered him papers, bundles of sticks, pine-wood and perfumed reeds, together with loosely twisted threads of white and red cotton, a manta, a maxtli, tunics, and shirts. When a woman died her whole wardrobe was carefully put aside, and a portion burnt eighty days after; this operation was repeated on that day twelve months for four years, when everything that had belonged to the deceased was finally consumed. The dead then came out of the first circle to go successively through nine others encompassed by a large river. On its banks were a number of dogs which helped their owners to cross the

river; whenever a ghost neared the bank, his dog immediately jumped into the river and swam by his side or carried him to the opposite bank." It was on this account that Indians had always several small dogs about them.

The speech which was addressed to the dead when laid out previous to being buried, is so remarkable as to make one suspect that the author unconsciously added something of his own: "Son, your earthly hardships and sufferings are over. We are but mortal, and it has pleased the Lord to call you to himself. We had the privilege of being intimately acquainted with you; but now you share the abode of the gods, whither we shall all follow, for such is the destiny of man. The place is large enough to receive every one; but although all are bound for the gloomy bourn, none ever return." Then followed the speech addressed to the nearest kinsman of the dead: "O son, cheer up; eat, drink, and let not your mind be cast down. Against the divine fiat who can contend? This is not of man's doing; it is the Lord's. Take comfort to bear up against the evils of daily life; for who is able to add a day, an hour, to his existence? Cheer up, therefore, as becomes a man."

Toltec Sepulchral Stone.

But to return to our tombstones. They are both alike, being about five feet high, three feet five inches broad, and six inches and a half thick. The upper side is smooth, the lower has some carving in the shape

of a cross, four big tears or drops of water, and a pointed tongue in the centre, which, starting from the bottom of the slab, runs up in a line parallel to the drops.

Knowing how general was the worship of Tlaloc among the Indians I conjectured this had been a monument to the god of rain, to render him propitious to the dead; a view shared and enlarged upon by Dr. Hamy in a paper read before the Académie des Sciences in November, 1882; and that I should be in accord with the eminent specialist on American antiquities is a circumstance to make me proud. I may add that the carving of this slab is similar to that of the cross on the famous *basso-rilievo* at Palenque; so that the probability of the two monuments having been erected to the god of rain is much strengthened thereby.

Toltec Sepulchral Stone.

As our slabs are far more archaic than those at Palenque, we think we are justified in calling them earlier in time — the parent samples of the later ones. Nor is our assumption unsupported, for we shall subsequently find that the cult of Tlaloc and Quetzalcoatl was carried by the Toltecs in their distant peregrinations. These slabs, therefore, and the pillars which were found in the village, acquire a paramount importance in establishing the affiliation of Toltec settlements in Tabasco, Yucatan, and other places, furnishing us with further data in regard to certain monuments at Pa-

lenque, the steles of Tikal, and the massive monolith idols of Copan.

I next attacked the terraced court fronting the palace towards the Path of Death, and the amount of constructions and substructures we came upon is almost beyond belief: inclined stuccoed walls crossing each other in all directions, flights of steps leading to terraces within the pyramid, ornaments, pottery, and detritus; so much so that the pyramid might not improperly be called a necropolis, in which the living had their dwellings.

In a word, our campaign at Teotihuacan was as successful as our campaign at Tula. We were attended by the same good fortune, and the reader whom such things may interest will find a bas-relief of both Toltec palaces, and of one of the tombstones, in the Trocadero.

From what has been said it will be seen that the monuments at Teotihuacan were partly standing at the time of the Conquest.

Toltec Toy Cart.

CÆSAR'S EXPLORATIONS IN GAUL

(From Cæsar's Commentaries on The Gallic and Civil Wars.)

Gaulish Warrior.

THROUGHOUT all Gaul there are two orders of those men who are of any rank and dignity: for the commonalty is held almost in the condition of slaves, and dares to undertake nothing of itself, and is admitted to no deliberation. The greater part, when they are pressed either by debt, or the large amount of their tribute, or the oppression of the more powerful, give themselves up in vassalage to the nobles, who possess over them the same rights without exception as masters over their slaves. But of these two orders one is that of the Druids, the other that of the Knights. The former are engaged in things sacred, conduct the public and the private sacrifices, and interpret all matters of religion. To these a large number of the young men resort for the purpose of instruction, and they (the Druids) are in great honor among them, for they determine respecting almost all controversies, public and private; and if any crime has been perpetrated, if murder has been

committed, if there be any dispute about an inheritance, if any about boundaries, these same persons decide it; they decree rewards and punishments; if any one, either in a public or private capacity, has not submitted to their decision, they interdict him from the sacrifices. This among them is the most heavy punishment. Those who have been thus interdicted are esteemed in the number of the impious and the criminal; all shun them, and avoid their society and conversation, lest they receive some evil from their contact: nor is justice administered to them when seeking it, nor is any dignity bestowed on them. Over all these Druids one presides, who possesses supreme authority among them. Upon his death, if any individual among the rest is pre-eminent in dignity he succeeds; but, if there are many equal, the election is made by the suffrages of the Druids; sometimes they even contend for the presidency with arms. These assemble at a fixed period of the year in a consecrated place in the territories of the Carnutes, which is reckoned the central region of the whole of Gaul. Hither all, who have disputes, assemble from every part, and submit to their decrees and determinations. This institution is supposed to have been devised in Britain, and to have been brought over from it into Gaul; and now those who desire to gain a more accurate knowledge of that system generally proceed thither for the purpose of studying it.

The Druids do not go to war, nor pay tribute together with the rest; they have an exemption from military service, and a dispensation in all matters. Induced by such great advantages, many embrace

this profession of their own accord, and (many) are sent to it by their parents and relations. They are said there to learn by heart a great number of verses; accordingly, some remain in the course of training twenty years, nor do they regard it lawful to commit these to writing, though in almost all other matters, in their public and private transactions, they use Greek characters. That practice they seem to me to have adopted for two reasons; because they neither desire their doctrines to be divulged among the mass of the people, nor those who learn, to devote themselves the less to the efforts of memory, relying on writing; since it generally occurs to most men, that, in their dependence on writing, they relax their diligence in learning thoroughly, and their employment of the memory. They wish to inculcate this as one of their leading tenets, that souls do not become extinct, but pass after death from one body to another, and they think that men by this tenet are in a great degree excited to valor, the fear of death being disregarded. They likewise discuss and impart to the youth many things respecting the stars and their motion, respecting the extent of the world and of our earth, respecting the nature

Druid Monuments.

of things, respecting the power and majesty of the immortal gods.

The other is that of the Knights. These, when there is occasion and any war occurs (which before Cæsar's arrival was for the most part wont to happen every year, as either they on their part were inflicting injuries or repelling those which others inflicted on them), are all engaged in war. And those of them most distinguished by birth and resources, have the greatest number of vassals and dependents about them. They acknowledge this sort of influence and power only.

A Worshipper of Fire.

The Germans have neither Druids to preside over sacred offices, nor do they pay great regard to sacrifices. They rank in the number of the gods those alone whom they behold, and by whose instrumentality they are obviously benefited, namely, the sun, fire, and the moon; they have not heard of the other deities even by report. Their whole life is occupied by hunting and in the pursuits of the military art; from childhood they devote themselves to fatigue and hardships. Those who have remained chaste for the longest time, receive the greatest commendation among their people; they think that by this

the growth is promoted, by this the physical powers are increased and the sinews are strengthened. . . . They bathe promiscuously in the rivers and (only) use skins or small cloaks of deer's hides, a large portion of the body being in consequence naked.

They do not pay much attention to agriculture, and a large portion of their food consists in milk, cheese, and flesh; nor has any one a fixed quantity of land or his own individual limits; but the magistrates and the leading men each year apportion to the tribes and families, who have united together, as much land as, and in the place in which, they think proper, and the year after compel them to remove elsewhere. For this enactment they advance many reasons — lest seduced by long continued custom, they may exchange their ardor in the waging of war for agriculture; lest they may be anxious to acquire extensive estates, and the more powerful drive the weaker from their possessions; lest they construct their houses with too great a desire to avoid cold and heat; lest the desire of wealth spring up, from which cause dissensions and discords arise; and that they may keep the common people in a contented state of mind, when each sees his own means placed on an equality with (those of) the most powerful.

It is the greatest glory to the several states to have as wide deserts as possible around them, their frontiers having been laid waste. They consider this the real evidence of their prowess, that their neighbors shall be driven out of their lands and abandon them, and that no one dare settle near them; at the same time they think they shall be on that account the more secure, because they have removed the apprehension of a sud-

den incursion. When a state either repels war waged against it, or wages it against another, magistrates are chosen to preside over that war with such authority, that they have power of life and death. In peace there is no common magistrate, but the chiefs of provinces and cantons administer justice and determine controversies among their own people. Robberies which are committed beyond the boundaries of each state bear no infamy, and they avow that these are committed for the purpose of disciplining their youth and of preventing sloth. And when any of their chiefs has said in an assembly "that he will be their leader, let those who are willing to follow, give in their names;" they who approve of both the enterprise and the man arise and promise their assistance, and are applauded by the people; such of them as have not followed him are accounted in the number of deserters and traitors, and confidence in all matters is afterward refused them. To injure guests they regard as impious; they defend from wrong those who have come to them for any purpose whatever, and esteem them inviolable; to them the houses of all are open and maintenance is freely supplied.

And there was formerly a time when the Gauls excelled the Germans in prowess, and waged war on them offensively, and, on account of the great number of their people and the insufficiency of their land, sent colonies over the Rhine. Accordingly, the Volcæ Tectosages seized on those parts of Germany which are the most fruitful (and lie) around the Hercynian forest (which, I perceive, was known by report to Eratosthenes and some other Greeks, and which they

call Orcynia), and settled there. Which nation to this time retains its position in those settlements, and has a very high character for justice and military merit; now also they continue in the same scarcity, indigence, hardihood, as the Germans, and use the same food and dress; but their proximity to the Province and knowledge of commodities from countries beyond the sea supplies to the Gauls many things tending to luxury as well as civilization. Accustomed by degrees to be overmatched and worsted in many engagements, they do not even compare themselves to the Germans in prowess.

The breadth of this Hercynian forest, which has been referred to above, is to a quick traveller, a journey of nine days. For it cannot be otherwise computed, nor are they acquainted with the measures of roads. It begins at the frontiers of the Helvetii, Nemetes, and Rauraci, and extends in a right line along the river Danube to the territories of the Daci and the Anartes; it bends thence to the left in a different direction from the river, and owing to its extent touches the confines of many nations; nor is there any person belonging to this part of Germany who says that he either has gone to the extremity of that forest, though he had advanced a journey of sixty days, or has heard in what place it begins. It is certain that many kinds of wild beasts are produced in it which have not been seen in other parts; of which the following are such as differ principally from other animals, and appear worthy of being committed to record.

There is an ox of the shape of a stag, between whose ears a horn rises from the middle of the forehead, higher and straighter than those horns which are

known to us. From the top of this, branches, like palms, stretch out a considerable distance. The shape of the female and of the male is the same; the appearance and the size of the horns are the same.

There are also (animals) which are called elks. The shape of these, and the varied color of their skins, are much like roes, but in size they surpass them a little and are destitute of horns, and have legs without joints and ligatures; nor do they lie down for the purpose of rest, nor, if they be thrown down by an accident, can they raise or lift themselves up. Trees serve as beds to them; they lean themselves against them, and thus reclining only slightly, they take their rest; when the huntsmen have discovered from the footsteps of these animals whither they are accustomed to betake themselves, they either undermine all the trees at the roots, or cut into them so that the upper part of the trees may appear to be left standing. When they have leant upon them, according to their habit, they knock down by their weight the unsupported trees, and fall down themselves along with them.

There is a third kind, consisting of those animals which are called uri. These are a little below the elephant in size, and of the appearance, color, and shape of a bull. Their strength and speed are extraordinary; they spare neither man nor wild beast which they have espied. These the Germans take with much pains in pits and kill them. The young men harden themselves with this exercise, and practise themselves in this kind of hunting, and those who have slain the greatest number of them, having produced the horns in public, to serve as evidence, receive great praise. But not even

when taken very young can they be rendered familiar to men and tamed. The size, shape, and appearance of their horns differ much from the horns of our oxen. These they anxiously seek after, and bind at the tips with silver, and use as cups at their most sumptuous entertainments.

Gaulish Warrior.

NORSE EXPLORERS

By HAUK ERLENDSSON.

(Translated by A. M. Reeves.)

A Norseman.

THERE was a man named Thorvald; he was a son of Asvald Ulf's son, Eyxna-Thori's son. His son's name was Eric. He and his father went from Jaederen to Iceland, on account of manslaughter, and settled on Hornstrandir, and dwelt at Drangar. . . .

Eric and his people were condemned to outlawry at Thorsness-thing. He equipped his ship for a voyage, in Ericsvag; while Eyiolf concealed him in Dimunarvag, when Thorgest and his people were searching for him among the islands. He said to them that it was his intention to go in search of that land which Gunnbiorn, son of Ulf the Crow, saw when he was driven out of his course, westward across the main, and discovered Gunnbiornsskerries. He told them that he would return again to his friends, if he should succeed in finding that country. Thorbiorn, and Eyiolf, and Styr accompanied Eric out beyond the islands, and they parted with the greatest friendliness; Eric said to them that he

would render them similar aid, so far as it might lie within his power, if they should ever stand in need of his help. Eric sailed out to sea from Snaefellsiokul, and arrived at that ice mountain which is called Blacksark. Thence he sailed to the southward, that he might ascertain whether there was habitable country in that direction. He passed the first winter at Ericsey near the middle of the Western-settlement. In the following spring he proceeded to Ericsfirth, and selected a site there for his homestead. That summer he explored the western uninhabited region, remaining there for a long time, and assigning many local names there. The second winter he spent at Ericsholms beyond Hvarfsgnipa. But the third summer he sailed northward to Snaefell, and into Hrafnsfirth. He believed then that he had reached the head of Ericsfirth. The following summer he sailed to Iceland, and landed in Breidafirth. He remained that winter with Ingolf at Holmlatr. In the spring he and Thorgest fought together, and Eric was defeated; after this a reconciliation was effected between them. That summer Eric set out to colonize the land which he had discovered, and which he called Greenland, because, he said, men would be the more readily persuaded thither if the land had a good name. . . .

Leif the Lucky and the Introduction of Christianity into Greenland.

Eric was married to a woman named Thorhild, and had two sons; one of these was named Thorstein, and the other Leif. They were both promising men. Thorstein lived at home with his father, and there was not

NORSE EXPLORERS.

at that time a man in Greenland who was accounted of so great promise as he. Leif had sailed to Norway, where he was at the court of King Olaf Tryggvason. . . .

He was well received by the king, who felt that he could see that Leif was a man of great accomplishments. Upon one occasion the king came to speech with Leif, and asks him, "Is it thy purpose to sail to Greenland in the summer?" "It is my purpose," said Leif, "if it be your will." "I believe it will be well," answers the king, "and thither thou shalt go upon my errand, to proclaim Christianity there." Leif replied that the king should decide, but gave it as his belief that it would be difficult to carry this mission to a successful issue in Greenland. The king replied that he knew of no man who would be better fitted for this undertaking, "and in thy hands the cause will surely prosper." "This can only be," said Leif, "if I enjoy the grace of your protection." Leif put to sea when his ship was ready for the voyage. For a long time he was tossed about upon the ocean, and came upon lands of which he had previously had no knowledge. There were self-sown wheat-fields and vines growing there. There were also those trees there which are called "mausur," and of all these they took specimens. Some of the timbers were so large that they were used in building. Leif found men upon a wreck, and took them home with him, and procured quarters for them all during the winter. In this wise he showed his nobleness and goodness, since he introduced Christianity into the country, and saved the men from the wreck; and he was called Leif the Lucky ever after. Leif

landed in Ericsfirth, and then went home to Brattahlid; he was well received by every one. He soon proclaimed Christianity throughout the land, and the Catholic faith, and announced King Olaf Tryggvason's messages to the people, telling them how much excellence and how great glory accompanied this faith. . . .

The Wineland Voyages.

About this time there began to be much talk at Brattahlid, to the effect that Wineland the Good should be explored, for, it was said, that country must be possessed of many goodly qualities. And so it came to pass that Karlsefni and Snorri fitted out their ship, for the purpose of going in search of that country in the spring. Biarni and Thorhall joined the expedition with their ship and the men who had borne them company. . . .

Thorhall was stout and swarthy, and of giant stature; he was a man of few words, though given to abusive language, when he did speak, and he ever incited Eric to evil. He was a poor Christian; he had a wide knowledge of the unsettled regions. He was on the same ship with Thorvard and Thorvald. They had that ship which Thorbiorn had brought out. They had in all one hundred and sixty men, when they sailed to the Western settlement, and thence to Bear Island. Thence they bore away to the southward two "dœgr." Then they saw land, and launched a boat, and explored the land, and found there large flat stones [*hellur*], and many of these were twelve ells wide; there were many Arctic foxes there. They gave a name to the country, and called it Helluland [the land

of flat stones]. Then they sailed with northerly winds two "dœgr," and land then lay before them, and upon it was a great wood and many wild beasts; an island lay off the land to the southeast, and there they found a bear, and they called this Biarney [Bear Island], while the land where the wood was they called Mark-land [Forest-land]. Thence they sailed southward along the land for a long time, and came to a cape; the land lay upon the starboard; there were long strands and sandy banks there. They rowed to the land and found upon the cape there the keel of a ship, and they called it there Kialarnes [Keelness]; they also called the strands Furdustrandir [Wonder-strands], because they were so long to sail by. Then the country became indented with bays, and they steered their ships into a bay. . . . Now when they had sailed past Wonder-strands, they put the Gaels ashore, and directed them to run to the southward, and investigate the nature of the country, and return again before the end of the third half-day. They were each clad in a garment, which they called "kiafal," and which was so fashioned, that it had a hood at the top, was open at the sides, was sleeveless, and was fastened . . . with buttons and loops, while elsewhere they were naked. Karlsefni and his companions cast anchor, and lay there during their absence; and when they came again, one of them carried a bunch of grapes, and the other an ear of new-sown wheat. They went on board the ship, whereupon Karlsefni and his followers held on their way, until they came to where the coast was indented with bays. They stood into a bay with their ships. There was an island out at the mouth of the bay, about which there

were strong currents, wherefore they called it Straumey [Stream Isle]. There were so many birds there, that it was scarcely possible to step between the eggs. They sailed through the firth, and called it Straumfiord [Streamfirth], and carried their cargoes ashore from the ships, and established themselves there. There were mountains thereabouts. They occupied themselves exclusively with the exploration of the country. They remained there during the winter, and they had taken no thought for this during the summer. The fishing began to fail, and they began to fall short of food. . . . The weather then improved, and they could now row out to fish, and thenceforward they had no lack of provisions, for they could hunt game on the land, gather eggs on the island, and catch fish from the sea.

Karlsefni and Thorhall.

It is said that Thorhall wished to sail to the northward beyond Wonder-strands, in search of Wineland, while Karlsefni desired to proceed to the southward, off the coast. . . .

It is now to be told of Karlsefni, that he cruised southward off the coast, with Snorri and Biarni, and their people. They sailed for a long time, until they came at last to a river, which flowed down from the land into a lake, and so into the sea. There were great bars at the mouth of the river, so that it could only be entered at the height of the flood-tide. Karlsefni and his men sailed into the mouth of the river, and called it there Hóp [a small land-locked bay]. They found self-sown wheat-fields on the land there,

wherever there were hollows, and wherever there was hilly ground, there were vines. Every brook there was full of fish. They dug pits on the shore where the tide rose highest, and when the tide fell, there were halibuts in the pits. There were great numbers of wild animals of all kinds in the woods. They remained there half a month, and enjoyed themselves, and kept no watch. They had their live-stock with them. Now one morning early, when they looked about them, they saw a great number of skin-canoes, and staves were brandished from the boats, with a noise like flails, and they were revolved in the same direction in which the sun moves. Then said Karlsefni, "What may this betoken?" Snorri, Thorbrand's son, answers him: "It may be, that this is a signal of peace, wherefore let us take a white shield and display it." And thus they did. Thereupon the strangers rowed toward them, and went upon the land, marvelling at those whom they saw before them. They were swarthy men, and ill looking, and the hair of their heads was ugly. They had great eyes, and were broad of cheek. They tarried there for a long time looking curiously at the people they saw before them, and then rowed away, and to the southward around the point.

Karlsefni and his followers had built their huts above the lake; some of their dwellings being near the lake, and others farther away. Now they remained there that winter. No snow came there, and all of their live-stock lived by grazing. And when spring opened, they discovered early one morning, a great number of skin-canoes, rowing from the south past the

cape, so numerous, that it looked as if coals had been scattered broadcast out before the bay; and on every boat staves were waved. Thereupon Karlsefni and his people displayed their shields, and when they came together, they began to barter with each other. Especially did the strangers wish to buy red cloth, for which they offered in exchange peltries, and quite gray skins. They also desired to buy swords and spears, but Karlsefni and Snorri forbade this. In exchange for perfect unsullied skins, the Skrellings would take red stuff, a span in length, which they would bind around their heads. So their trade went on for a time, until Karlsefni and his people began to grow short of cloth, when they divided it into such narrow pieces, that it was not more than a finger's breadth wide, but the Skrellings still continued to give just as much for this as before, or more.

It so happened, that a bull, which belonged to Karlsefni and his people, ran out from the woods, bellowing loudly. This so terrified the Skrellings, that they sped out to their canoes, and then rowed away to the southward along the coast. For three entire weeks nothing more was seen of them. At the end of this time, however, a great multitude of Skrelling boats was discovered approaching from the south, as if a stream were pouring down, and all of their staves were waved in a direction contrary to the course of the sun, and the Skrellings were all uttering loud cries. Thereupon Karlsefni and his men took red shields and displayed them. The Skrellings sprang from their boats, and they met them, and fought together. There was a fierce shower of missiles, for the Skrellings had war-

slings. Karlsefni and Snorri observed that the Skrellings raised upon a pole a great ball-shaped body, almost the size of a sheep's belly, and nearly black in color, and this they hurled from the pole up on the land above Karlsefni's followers, and it made a frightful noise, where it fell. Whereupon a great fear seized upon Karlsefni, and all his men, so that they could think of nought but flight, and of making their escape up along the river bank, for it seemed to them, that the troop of the Skrellings was rushing towards them from every side, and they did not pause until they came to certain jutting crags, where they offered a stout resistance. Freydis came out, and seeing that Karlsefni and his men were fleeing, she cried: "Why do you flee from these wretches, such worthy men as ye, when meseems, ye might slaughter them like cattle. Had I but a weapon, methinks, I would fight better than any of you!" They gave no heed to her words. Freydis sought to join them, but lagged behind, for she was not hale; she followed them, however, into the forest, while the Skrellings pursued her; she found a dead man in front of her; this was Thorband, Snorri's son, his skull cleft by a flat stone; his naked sword lay beside him; she took it up and prepared to defend herself with it. The Skrellings then approached her, whereupon, she . . . slapped her breast with the naked sword. At this the Skrellings were terrified and ran down to their boats, and rowed away. Karlsefni and his companions, however, joined her, and praised her valor. Two of Karlsefni's men had fallen, and a great number of Skrellings. Karlsefni's party had been overpowered by dint of superior numbers.

They now returned to their dwellings, and bound up their wounds, and weighed carefully what throng of men that could have been, which had seemed to descend upon them from the land; it now seemed to them, that there could have been but the one party, that which came from the boats, and that the other troop, must have been an ocular delusion. The Skrellings, moreover, found a dead man, and an axe lay beside him. One of their number picked up the axe and struck at a tree with it, and one after another [they tested it], and it seemed to them to be a treasure, and to cut well; then one of their number seized it, and hewed at a stone with it, so that the axe broke, whereat they concluded that it could be of no use, since it would not withstand stone, and they cast it away.

It now seemed clear to Karlsefni and his people, that although the country thereabouts was attractive, their life would be one of constant dread and turmoil by reason of the [hostility of the] inhabitants of the country, so they forthwith prepared to leave, and determined to return to their own country. They sailed to the northward off the coast, and found five Skrellings clad in skin-doublets, lying asleep near the sea. There were vessels beside them, containing animal marrow mixed with blood. Karlsefni and his company concluded that they must have been banished from their own land. They put them to death. They afterwards found a cape, upon which there was a great number of animals . . . which lay there at night. They now arrive again at Streamfurth, where they found great abundance of all those things of which they stood in need. Some men say that Biarni and Freydis remained

behind here with a hundred men, and went no further; while Karlsefni and Snorri proceeded to the southward with forty men, tarrying at Hop barely two months, and returning again the same summer. Karlsefni then set out with one ship in search of Thorhall the Huntsman, but the greater part of the company remained behind. They sailed to the northward around Keelness, and then bore to the westward, having land to the larboard. The country there was a wooded wilderness as far as they could see, with scarcely an open space; and when they had journeyed a considerable distance, a river flowed down from the east toward the west. They sailed into the mouth of the river, and lay to by the southern bank.

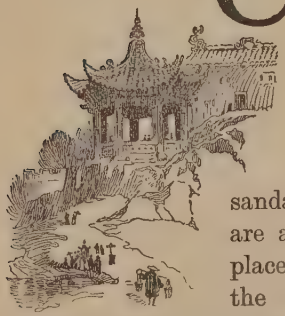
Norse Ship.

MARCO POLO IN THE EAST

(From the Travels of Marco Polo.)

Edited by SIR CLEMENTS R. MARKHAM.

Concerning the cities of Cacanfu and of Changlu.



CACANFU is a noble city. The people are Idolaters and burn their dead; they have paper-money, and live by trade and handicrafts. For they have plenty of silk from which they weave stuffs of silk or gold, and sandals in large quantities. (There are also certain Christians at this place, who have a church.) And the city is at the head of an important territory containing numerous towns and villages. (A great river passes through it, on which much merchandise is carried to the city of Cambaluc, for by many channels and canals it is connected therewith.)

We will now set forth again, and travel three days towards the south, and then we come to a town called Changlu. This is another great city belonging to the Great Kaan, and to the province of Cathay. The

people have paper-money, and are Idolaters and burn their dead. And you must know they make salt in great quantities at this place; I will tell you how 'tis done.

A kind of earth is found there which is exceedingly salt. This they dig up and pile in great heaps. Upon these heaps they pour water in quantities till it runs out at the bottom; and then they take up this water and boil it well in great iron cauldrons, and as it cools it deposits a fine white salt in very small grains. This salt they then carry about for sale to many neighboring districts, and get great profit thereby.

There is nothing else worth mentioning, so let us go forward five days' journey, and we shall come to a city called Chinangli.

Chinangli is a city of Cathay as you go south, and it belongs to the Great Kaan; the people are Idolaters, and have paper-money. There runs through the city a great and wide river, on which a large traffic in silk goods and spices and other costly merchandise passes up and down.

When you travel south from Chinangli for five days, you meet everywhere with fine towns and villages, the people of which are all Idolaters, and burn their dead, and are subject to the Great Kaan, and have paper-money, and live by trade and handicrafts, and have all the necessaries of life in great abundance. But there is nothing particular to mention on the way till you come, at the end of those five days, to Tadinfu.

This, you must know, is a very great city, and in old times was the seat of a great kingdom; but the Great Kaan conquered it by force of arms. Nevertheless, it

is still the noblest city in all those provinces. There are very great merchants here, who trade on a great scale, and the abundance of silk is something marvellous. They have, moreover, most charming gardens abounding with fruit of large size. The city of Tadinfu hath also under its rule eleven imperial cities of great importance, all of which enjoy a large and profitable trade, owing to that immense produce of silk.

Now, you must know, that in the year of Christ, 1273, the Great Kaan had sent a certain Baron, called Liytan Sangon, with some eighty thousand horse, to this province and city to garrison them. And after the said captain had tarried there a while, he formed a disloyal and traitorous plot, and stirred up the great men of the province to rebel against the Great Kaan. And so they did; for they broke into revolt against their sovereign lord, and refused all obedience to him, and made this Liytan, whom their sovereign had sent thither for their protecti n, to be the chief of their revolt.

Chinese Archer.

When the Great Kaan heard thereof he straightway despatched two of his Barons, one of whom was called Aguil and the other Mongotay; giving them one hundred thousand horse and a great force of infantry. But the affair was a serious one, for the Barons were met by the rebel Liytan and his party who were on foot. Never-

theless, in the battle Liytan and his party were utterly routed, and the two Barons whom the Emperor had sent won the victory. When the news came to the Great Kaan he was right well pleased, and ordered that all the chiefs who had rebelled, or excited others to rebel, should be put to a cruel death, but that those of lower rank should receive a pardon. And so it was done. The two Barons had all the leaders of the enterprise put to a cruel death, and all of those of lower rank were pardoned. And thenceforward they conducted themselves with loyalty towards their lord.

Now having told you all about this affair, let us have done with it, and I will tell you of another place that you come to in going south, which is called Sinju-matu.

On leaving Tadinfu you travel three days towards the south, always finding numbers of noble and populous towns and villages flourishing with trade and manufactures. There is also abundance of game in the country, and everything in profusion.

When you have travelled those three days you come to the noble city of Sinjumatu, a rich and fine place, with great trade and manufactures. The people are Idolaters and subjects of the Great Kaan, and have paper-money, and they have a river which I can assure you brings them great gain, and I will tell you about it.

You see the river in question flows from the south to this city of Sinjumatu. And the people of the city have divided this larger river in two, making one half of it flow east, and the other half flow west: that is to say, the one branch flows towards Manzi, and the other

towards Cathay. And it is a fact that the number of vessels at this city is what no one would believe without seeing them. The quantity of merchandise also which these vessels transport to Manzi and Cathay is something marvellous; and then they return loaded with other merchandise, borne to and fro on those two rivers which is quite as astonishing.

On leaving the city of Sinjumatu you travel for eight days toward the south, always coming to great and rich towns and villages flourishing with trade and manufactures. The people are all subjects of the Great Kaan, use paper-money, and burn their dead. At the end of those eight days you come to the city of Linju, in the province of the same name of which it is the capital. It is a rich and noble city, and the men are good soldiers, nevertheless they carry on great trade and manufactures. There is great abundance of game in both beasts and birds, and all the necessaries of life are in profusion. The place stands on the river of which I told you above. And they have here great numbers of vessels, even greater than those of which I spoke before, and these transport a great amount of costly merchandise.

So, quitting this province and city of Linju, you travel three days more towards the south, constantly finding numbers of rich towns and villages. These still belong to Cathay; and the people are all Idolaters, burning their dead and using paper-money, that, I mean, of their lord the Great Kaan, whose subjects they are. This is the finest country for game, whether in beasts or birds, that is anywhere to be found, and all the necessaries of life are in profusion.

A River Scene in China.

At the end of these three days you find the city of Piju, a great, rich, and noble city, with large trade and manufactures, and a great production of silk. This city stands at the entrance to the great province of Manzi, and there reside at it a great number of merchants who despatch carts from this place loaded with great quantities of goods to the different towns of Manzi. The city brings in a great revenue to the Great Kaan.

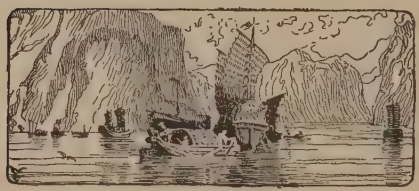
When you leave Piju you travel towards the south for two days, through beautiful districts abounding in everything, and in which you find quantities of all kinds of game. At the end of those two days you reach the city of Siju, a great, rich, and noble city, flourishing with trade and manufactures. The people are Idolaters, burn their dead, use paper-money, and are subjects of the Great Kaan. They possess extensive and fertile plains producing abundance of wheat and other grain. But there is nothing else to mention, so let us proceed and tell you of the countries further on.

On leaving Siju you ride south for three days, constantly falling in with fine towns and villages and hamlets and farms, with their cultivated lands. There is plenty of wheat and other corn, and of game also; and the people are all Idolaters and subjects of the Great Kaan.

At the end of those three days you reach the great river Caromoran, which flows hither from Prester John's country. It is a great river, and more than a mile in width, and so deep that great ships can navigate it. It abounds in fish, and very big ones, too. You must know that in this river there are some fifteen thou-

sand vessels, all belonging to the Great Kaan, and kept to transport his troops to the Indian Isles whenever there may be occasion; for the sea is only one day distant from the place we are speaking of. And each of these vessels, taking one with another, will require twenty mariners, and will carry fifteen horses with the men belonging to them, and their provisions, arms, and equipments.

Hither and thither, on either bank of the river, stands a town; the one facing the other. The one is called Coiganju and the other Caiju; the former is a large place, and the latter a little one. And when you pass this river you enter the great Province of Manzi, which was conquered by the Great Kaan.



THE FIRST EXPLORATIONS OF COLUMBUS

(From the Journal of Columbus.)

Translated by SIR CLEMENTS R. MARKHAM.

I LEFT the city of Granada on the 12th day of May, in the same year of 1492, being Saturday, and came to the town of Palos, which is a seaport; where I equipped three vessels well suited for such service; and departed from that port, well supplied with provisions and with many sailors, on the third day of August of the same year, being Friday, half an hour before sunrise, taking the route to the islands of Canaria, belonging to your Highnesses, which are in the said Ocean Sea, that I might thence take my departure for navigating until I should arrive at the Indies, and give the letters of your Highnesses to those princes, so as to comply with my orders. As part of my duty I thought it well to write an account of all the voyage very punctually, noting from day to day all that I should do and see, and that should happen, as will be seen further on. Also, Lords Princes, I resolved to describe each night what passed in the day, and to note each day how I navigated at night.

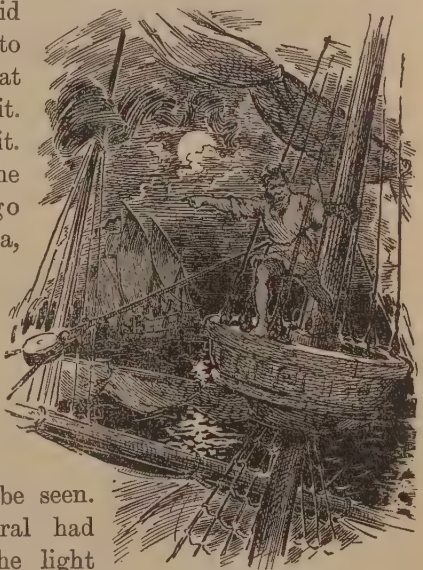
I propose to construct a new chart for navigating, on which I shall delineate all the sea and lands of the ocean in their proper positions under their bearings; and further, I propose to prepare a book, and to put down all as it were in a picture, by latitude from the equator, and western longitude. Above all, I shall have accomplished much, for I shall forget sleep, and shall work at the business of navigation, that so the service may be performed; all which will entail great labor.

Friday, 3d of August. — We departed on Friday, the 3d of August, in the year 1492, from the bar of Saltes, at eight o'clock, and proceeded with a strong sea breeze until sunset, towards the south, for sixty miles, equal to fifteen leagues; afterwards S.W. and W.S.W., which was the course for the Canaries. . . .

Thursday, 11th of October. — The course was W.S.W., and there was more sea than there had been during the whole of the voyage. They saw sandpipers, and a green reed near the ship. Those of the caravel Pinta saw a cane and a pole, and they took up another small pole which appeared to have been worked with iron; also another bit of cane, a land-plant, and a small board. The crew of the caravel Nina also saw signs of land, and a small branch covered with berries. Every one breathed afresh, and rejoiced at these signs. The run until sunset was twenty-six leagues.

After sunset the Admiral returned to his original west course, and they went along at the rate of twelve miles an hour. Up to two hours after midnight they had gone ninety miles, equal to twenty-two and one half leagues. As the caravel Pinta was a better sailor, and went ahead of the Admiral, she found the land,

and made the signals ordered by the Admiral. The land was first seen by a sailor named Rodrigo de Triana. But the Admiral, at ten in the previous night, being on the castle of the poop, saw a light, though it was so uncertain that he could not affirm it was land. He called Pero Gutierrez, a gentleman of the king's bed-chamber, and said that there seemed to be a light, and that he should look at it. He did so, and saw it. The Admiral said the same to Rodrigo Sanchez of Segovia, whom the king and queen had sent with the fleet as inspector, but he could see nothing, because he was not in a place whence anything could be seen. After the Admiral had spoken, he saw the light once or twice, and it was like a wax candle rising and falling. It seemed to few to be an indication of land; but the Admiral made certain that land was close. When they said the Salve, which all the sailors were accustomed to sing in their way, the Admiral asked and admonished the men to keep a good lookout on the forecastle, and to watch well for land; and to him who should



Land was Sighted.

first cry out that he saw land, he would give a silk doublet, besides the other rewards promised by the sovereigns, which were ten thousand maravedis to him who should first see it. At two hours after midnight the land was sighted at a distance of two leagues. They shortened sail, and lay by under the mainsail without the bonnets. The vessels were hove to, waiting for daylight; and on Friday they arrived at a small island of the Lucayos, called, in the language of the Indians, Guanahani. Presently they saw naked people. The Admiral went on shore in the armed boat, and Martin Alonso Pinzon, and Vicente Yanez, his brother, who was captain of the Nina. The Admiral took the royal standard, and the captains went with two banners of the green cross, which the Admiral took in all the ships as a sign, with an F and a Y, and a crown over each letter, one on one side of the cross and the other on the other. Having landed they saw trees very green, and much water, and fruits of diverse kinds. The Admiral called to the two captains, and to the others who leaped on shore, and to Rodrigo Escovedo, secretary of the whole fleet, and to Rodrigo Sanchez of Segovia, and said that they should bear faithful testimony that he, in the presence of all, had taken, as he now took, possession of the said island for the king and for the queen, his lords making the declarations that are required, as is more largely set forth in the testimonies which were then made in writing.

Presently many inhabitants of the island assembled. What follows is in the actual words of the Admiral in his book of the first navigation and discovery of the

Indies. "I," he says, "that we might form great friendship, for I knew that they were a people who could be more easily freed and converted to our holy faith by love than by force, gave to some of them red caps, and glass beads to put round their necks, and many other things of little value, which gave them great pleasure, and made them so much our friends that it was a marvel to see. They afterwards came to the ship's boats where we were, swimming and bringing us parrots, cotton threads in skeins, darts, and many other things; and we exchanged them for other things that we gave them, such as glass beads and small bells. In fine, they took all, and gave what they had with good will. It appeared to me to be a race of people very poor in everything. They go as naked as when their mothers bore them, and so do the women, although I did not see more than one young girl. All I saw were youths, none more than thirty years of age. They are very well made, with very handsome bodies, and very good countenances. Their hair is short and coarse, almost like the hairs of a horse's tail. They wear the hairs brought down to the eyebrows, except a few locks behind, which they wear long and never cut. They paint themselves black, and they are the color of the Canarians, neither black nor white. Some paint themselves white, others red, and others of what color they find. Some paint their faces, others the whole body, some only round the eyes, others only on the nose. They neither carry nor know anything of arms, for I showed them swords, and they took them by the blade and cut themselves through ignorance. They have no iron, their darts being wands without

iron, some of them having a fish's tooth at the end and others being pointed in other various ways. They are all of fair stature and size, with good faces, and well made. I saw some with marks of wounds on their bodies, and I made signs to ask what it was, and they gave me to understand that people from other adjacent islands came with the intention of seizing them, and that they defended themselves. I believed, and still believe, that they come here from the mainland to take them prisoners. They should be good servants, and intelligent, for I observed that they quickly took in what was said to them, and I believe that they would easily be made Christians, as it appeared to me that they had no religion.

"I, our Lord being pleased, will take hence, at the time of my departure, six natives for your Highnesses, that they may learn to speak. I saw no beast of any kind except parrots, on this island." The above is in the words of the Admiral.

Saturday, 13th of October.— As soon as dawn broke many of these people came to the beach, all youths, as I have said, and all of good stature, a very handsome people. Their hair is not curly, but loose and coarse, like horse hair. In all the forehead is broad, more so than in any other people I have hitherto seen. Their eyes are very beautiful and not small, and themselves far from black, but the color of the Canarians. Nor should anything else be expected, as this island is in a line east and west from the island of Hierro in the Canaries. Their legs are very straight, all in one line, and no belly, but very well formed.

They came to the ship in small canoes, made out of

the trunk of a tree like a long boat, and all of one piece, and wonderfully worked, considering the country. They are large, some of them holding forty to forty-five men, others smaller, and some only large enough to hold one man. They are propelled with a paddle like a baker's shovel, and go at a marvellous rate. If the canoe capsizes they all promptly begin to swim, and to bail it out with calabashes that they take with them.

They brought skeins of cotton thread, parrots, darts, and other small things which it would be tedious to recount, and they give all in exchange for anything that may be given to them. I was attentive, and took trouble to ascertain if there was gold. I saw that some of them had a small piece fastened in a hole they have in the nose, and by signs I was able to make out that to the south, or going from the island to the south, there was a king who had great cups full, and who possessed a great quantity. I tried to get them to go there, but afterwards I saw that they had no inclination. I resolved to wait until to-morrow in the afternoon and then to depart, shaping a course to the S.W., for, according to what many of them told me, there was land to the S. to the S.W., and N.W., and that the natives from the N.W. often came to attack them, and went on to the S.W. in search of gold and precious stones.

This island is rather large and very flat, with bright green trees, much water, and a very large lake in the centre, without any mountain; and the whole land so green that it is a pleasure to look on it.

The people are very docile, and for the longing to

possess our things, and not having anything to give in return, they take what they can get, and presently swim away. Still, they give away all they have got, for whatever may be given to them, down to broken bits of crockery and glass. I saw one give sixteen skeins of cotton for three ceotis of Portugal, equal to one blanca of Spain, the skeins being as much as an arroba of cotton thread. I shall keep it, and shall allow no one to take it, preserving it all for your Highnesses, for it may be obtained in abundance. It is grown in this island, though the short time did not admit of my ascertaining this for a certainty. Here also is found the gold they wear fastened in their noses. But, in order not to lose time, I intend to go and see if I can find the island of Cipango. Now, as it is night, all the natives have gone on shore with their canoes.

Sunday, 14th of October.—"At dawn I ordered the ship's boat and the boats of the caravels to be got ready, and I went along the coast of the island to the N. N. E., to see the other side, which was on the other side to the east, and also to see the villages. Presently I saw two or three, and the people all came to the shore, calling out and giving thanks to God. Some of them brought us water, others came with food, and when they saw that I did not want to land, they got into the sea and came swimming to us. We understood that they asked us if we had come from heaven. One old man came into the boat, and others cried out, in loud voices, to all the men and women, to come and see the men who had come from heaven, and to bring them to eat and drink. Many came, including women, each bringing something, giving thanks to God, throw-

ing themselves on the ground and shouting to us to come on shore.

But I was afraid to land, seeing an extensive reef of rocks which surrounded the island, with deep water between it and the shore forming a port large enough for as many ships as there are in Christendom, but with a very narrow entrance. It is true that within this reef there are some sunken rocks, but the sea has no more motion than the water in a well. In order to see all this I went this morning, that I might be able to give a full account to your Highnesses, and also where a fortress might be established. I saw a piece of land which appeared like an island, although it is not one, and on it there were six houses. It might be converted into an island in two days, though I do not see that it would be necessary, for these people are very simple as regards the use of arms, as your Highnesses will see from the seven that I caused to be taken, to bring home and learn our language, and return; unless your Highnesses should order them all to be brought to Castille, or to be kept as captives on the same island; for with fifty men they can all be subjugated and made to do what is required of them. Close to the above peninsula there are gardens of the most beautiful trees I ever saw, and with leaves as green as those of Castille in the month of April and May, and much water. I examined all that port, and afterwards I returned to the ship and made sail. I saw so many islands that I hardly knew how to determine to which I should go first. Those natives I had with me said, by signs, that there were so many that they could not be numbered, and they gave the names of more than a hun-

dred. At last I looked out for the largest, and resolved to shape a course for it, and so I did. It will be distant five leagues from this of San Salvador, and the others some more, some less. All are very flat, and all are inhabited. The natives make war on each other, although these are very simple-minded and handsomely-formed people."

Monday, 15th of October.—"I had laid by during the night, with the fear of reaching the land to anchor before daylight, not knowing whether the coast was clear of rocks, and at dawn I made sail. As the island was more than five leagues distant, and nearer seven, and the tide checked my way, it was noon when we arrived at the said island. I found that side facing towards the island of San Salvador trended north and south with a length of five leagues, and the other which I followed, ran east and west for more than ten leagues.

As from this island I saw another larger one to the west, I clued up the sails, after having run all that day until night, otherwise I could not have reached the western cape. I gave the name of Santa Maria de la Concepcion to the island, and almost as the sun set I anchored near the said cape to ascertain if it contained gold. For the people I had taken from the island of San Salvador told me that here they wore very large rings of gold on their arms and legs. I really believed that all they said was nonsense, invented that they might escape. My desire was not to pass any island without taking possession, so that, one having been taken, the same may be said of all. I anchored, and remained until to-day, Tuesday, when

I went to the shore with the boats armed, and landed. The people, who were numerous, went naked, and were like those of the other island of San Salvador. They let us go over the island, and gave us what we required. As the wind changed to the S.E., I did not

Indian approaching Herd of Deer.

like to stay, and returned to the ship. A large canoe was alongside the Nina, and one of the men of the island of San Salvador, who was on board, jumped into the sea and got into the canoe. In the middle of the night before, another swam away behind the canoe,

which fled, for there never was a boat that could have overtaken her, seeing that in speed they have a great advantage. So they reached the land and left the canoe. Some of my people went on shore in chase of them, but they all fled like fowls, and the canoe they had left was brought alongside the caravel Nina, whither, from another direction, another small canoe came, with a man who wished to barter with skeins of cotton. Some sailors jumped into the sea, because he would not come on board the caravel, and seized him. I was on the poop of my ship, and saw everything. So I sent for the man, gave him a red cap, some small beads of green glass, which I put on his arms, and small bells, which I put in his ears, and ordered his canoe, which was also on board, to be returned to him. I sent him on shore, and presently made sail to go to the other large island, which was in sight to the westward.

I also ordered the other large canoe, which the caravel Nina was towing astern, to be cast adrift; and I soon saw that it reached the land at the same time as the man to whom I had given the above things. I had not wished to take the skein of cotton that he offered me. All the others came round him and seemed astonished, for it appeared clear to them that we were good people. The other man who had fled might do us some harm, because we had carried him off, and for that reason I ordered this man to be set free and gave him the above things, that he might think well of us, otherwise, when your Highnesses again send an expedition, they might not be friendly. All the presents I gave were not worth four maravedis.

At ten we departed with the wind S. W., and made for the south, to reach that other island, which is very large, and respecting which all the men that I bring from San Salvador make signs that there is much gold, and that they wear it as bracelets on the arms, on the legs, in the ears and nose, and round the neck. The distance of this island from that of Santa Maria is nine leagues on a course east to west. All this part of the island trends N. W. and S. E., and it appeared that this coast must have a length of twenty-eight leagues. It is very flat, without any mountain, like San Salvador and Santa Maria, all being beach without rocks, except that there are some sunken rocks near the land, whence it is necessary to keep a good lookout when it is desired to anchor, and not to come to very near the land; but the water is always very clear, and the bottom is visible. At a distance of two shots of a lombard, there is, off all these islands, such a depth that the bottom cannot be reached.

These islands are very green and fertile, the climate very mild. They may contain many things of which I have no knowledge, for I do not wish to stop, in discovering and visiting many islands, to find gold. These people make signs that it is worn on the arms and legs; and it must be gold, for they point to some pieces that I have. I cannot err, with the help of our Lord, in finding out where this gold has its origin. Being in the middle of the channel between these two islands, that is to say, that of Santa Maria and this large one, to which I give the name of Fernandina, I came upon a man alone in a canoe going from Santa Maria to Fernandina. He had a little of their bread, about the

size of a fist, a calabash of water, a piece of brown earth powdered and then kneaded, and some dried leaves, which must be a thing highly valued by them, for they bartered with it at San Salvador. He also had with him a native basket with a string of glass beads, and two blancas, by which I knew that he had come from the island of San Salvador, and had been to Santa Maria, and thence to Fernandina. He came alongside the ship, and I made him come on board as he desired, also getting the canoe inboard, and taking care of all his property. I ordered him to be given to eat bread and treacle, and also to drink: and so I shall take him on to Fernandina, where I shall return everything to him, in order that he may give a good account of us, that, our Lord pleasing, when your Highnesses shall send here, those who come may receive honor, and that the natives may give them all they require.

Tuesday, 16th of October. — I sailed from the island of Santa Maria de la Concepcion at about noon, to go to Fernandina island, which appeared very large to the westward, and I navigated all that day with light winds. I could not arrive in time to be able to see the bottom, so as to drop the anchor on a clear place, for it is necessary to be very careful not to lose the anchors. So I stood off and on all that night until day, when I came to an inhabited place where I anchored, and whence that man had come that I found yesterday in the canoe in mid channel. He had given such a good report of us that there was no want of canoes alongside the ship all that night, which brought us water and what they had to offer. I ordered each one to be given something, such as a few beads, ten or

twelve of those made of glass on a thread, some timbrels made of brass, such as are worth a maravedi in Spain, and some straps, all which they looked upon as most excellent. I also ordered them to be given treacle to eat when they came on board. At three o'clock I sent the ship's boat on shore for water, and the natives with good will showed my people where the water was, and they themselves brought the full casks down to the boat, and did all they could to please us.

This island is very large, and I have determined to sail round it, because, so far as I can understand, there is a mine in or near it. . . The island is eight leagues from Santa Maria, nearly east and west; and this point I had reached, as well as all the coast, trends N.N.W. and S.S.E. I saw at least twenty leagues of it, and then it had not ended. Now, as I am writing this, I made sail with the wind at the south, to sail round the island, and to navigate until I find Samaot, which is the island or city where there is gold, as all the natives say who are on board, and as those of San Salvador and Santa Maria told us. These people resemble those of the said islands, with the same language and customs, except that these appear to me to be a rather more domestic and tractable people, yet also more subtle. For I observed that those who brought cotton and other trifles to the ship, knew better than the others how to make a bargain. In this island I saw cotton cloths made like mantles. The people were better disposed, and the women wore in front of their bodies a small piece of cotton which scarcely covered them.

It is a very green island, level and very fertile, and I have no doubt that they sow and gather corn all the

year round, as well as other things. I saw many trees very unlike those of our country. Many of them have their branches growing in different ways and all from one trunk, and one twig is one form, and another is a different shape, and so unlike that it is the greatest wonder in the world to see the great diversity; thus one branch has leaves like those of a cane, and others like those of a mastick tree: and on a single tree there are five or six different kinds. Nor are these grafted, for it may be said that grafting is unknown, the trees being wild, and untended by these people. They do not know any religion, and I believe they could easily be converted to Christianity, for they are very intelligent. Here the fish are so unlike ours that it is wonderful. Some are the shape of dories, and of the finest colors in the world, blue, yellow, red, and other tints, all painted in various ways, and the colors are so bright that there is not a man who would not be astonished, and would not take great delight in seeing them. There are also whales. I saw no beasts on the land of any kind, except parrots and lizards. A boy told me that he saw a large serpent. I saw neither sheep nor

COLUMBUS ON SHIPBOARD.

goats, nor any other quadruped. It is true I have been here a short time, since noon, yet I could not have failed to see some if there had been any. I will write respecting the circuit of the island after I have been around it.

Wednesday, 17th of October. — At noon I departed from the village off which I was anchored, and where I took in water, to sail round this island of Fernandina. The wind was S.W. and south. My wish was to follow the coast of this island to the S.E., from where I was, the whole coast trending N.N.W. and S.S.E.; because all the Indians I bring with me, and others, made signs to this southern quarter, as the direction of the island they call Samaot, where the gold is. Martin Alonso Pinzon, captain of the caravel Pinta, on board of which I had three of the Indians, came to me and said that one of them had given him to understand very positively that the island might be sailed round much quicker by shaping a N.N.W. course. I saw that the wind would not help me to take the course I desired, and that it was fair for the other, so I made sail to the N.N.W.

When I was two leagues from the cape of the island, I discovered a very wonderful harbor. It has one mouth, or, rather, it may be said to have two, for there is an islet in the middle. Both are very narrow, and within it is wide enough for a hundred ships, if there was depth and a clean bottom, and the entrance was deep enough. It seemed desirable to explore it and take soundings, so I anchored outside, and went in with all the ship's boats, when we saw there was insufficient depth. As I thought, when I first saw it,

that it was the mouth of some river, I ordered the watercasks to be brought. On shore I found eight or ten men, who presently came to us and showed us the village, whither I sent the people for water, some with arms, and others with the casks: and as it was some little distance, I waited two hours for them.

During that time I walked among the trees, which was the most beautiful thing I had ever seen, beholding as much verdure as in the month of May in Andalusia. The trees are as unlike ours as night from day, as are the fruits, the herbs, the stones, and everything. It is true that some of the trees bore some resemblance to those in Castille, but most of them are very different, and some were so unlike that no one could compare them to anything in Castille. The people were all like those already mentioned: like them naked, and the same size. They give what they possess in exchange for anything that may be given to them. I here saw one of the ship's boys bartering broken bits of glass and crockery for darts. The men who went for water told me that they had been in the houses of the natives, and that they were very plain and clean inside. Their beds and bags for holding things were like nets of cotton. The houses are like booths, and very high, with good chimneys. But, among many villages that I saw, there was none that consisted of more than from twelve to fifteen houses. They had dogs, mastiffs, and hounds, and here they found a man who had a piece of gold in his nose, the size of half a castellano, on which they saw letters. I quarrelled with these people because they would not exchange or give what was required; as I wished to see what and whose this

money was; and they replied that they were not accustomed to barter.

After the water was taken I returned to the ship, made sail, and shaped a course N. W., until I had discovered all the part of the coast of the island which trends east to west. Then all the Indians turned round and said that this island was smaller than Samaot, and that it would be well to return back so as to reach it sooner. The wind presently went down, and then sprang up from W.N.W., which was contrary for us to continue on the previous course. So I turned back, and navi-

NATIVE OFFERING FRUIT.

gated all that night to E.S.E., sometimes to east and to S.E. This course was steered to keep me clear of the land, for there were very heavy clouds and thick weather, which did not admit of my approaching the land to anchor. On that night it rained very heavily from midnight until nearly dawn, and even afterwards the clouds threatened rain. We found ourselves at the S.W. end of the island, where I hoped to anchor until it cleared up, so as to see the other island whither I have to go. On all these days, since I arrived in these Indies, it has rained more or less. Your Highnesses

may believe that this land is the best and most fertile, and with a good climate, level, and as good as there is in the world.

Thursday, 18th of October. — "After it had cleared up I went before the wind, approaching the island as near as I could, and anchored when it was no longer light enough to keep under sail. But I did not go on shore, and made sail at dawn." . . .

PINZON OF PALOS

(From The Companions of Columbus.)

By WASHINGTON IRVING.

AMONG the maritime adventurers of renown who were roused to action by the licenses granted for private expeditions of discovery, we find conspicuous the name of Vicente Yañez Pinzon of Palos, one of the three brave brothers who aided Columbus in his first voyage, and risked life and fortune with him in his doubtful and perilous enterprise.

Of Martin Alonzo Pinzon, the eldest and most important of these three brothers, particular mention has been made in the History of Columbus, and of the unfortunate error in conduct which severed him from the admiral, brought on him the displeasure of the sovereigns, and probably contributed to his premature and melancholy death.

Whatever cloud of disgrace may have over-shadowed his family, it was but temporary. The death of Martin Alonzo, as usual, atoned for his faults, and his good deeds lived after him. The merits and services of himself and his brothers were acknowledged, and the

survivors of the family were restored to royal confidence. A feeling of jealous hostility prevented them from taking a part in the subsequent voyages of Columbus; but the moment the door was thrown open for individual enterprise, they pressed forward for permission to engage in it at their own risk and expense — and it was readily granted. In fact, their supposed hostility to Columbus was one of the surest recommendations they could have to the favor of the Bishop Fonseca, by whom the license was issued for their expedition.

Vicente Yañez Pinzon was the leader of this new enterprise, and he was accompanied by two nephews, named Arias Perez and Diego Fernandez, sons of his late brother, Martin Alonzo Pinzon. Several of his sailors had sailed with Columbus in his recent voyage to Paria, as had also his three principal pilots, Juan Quintero, Juan de Umbria, and Juan de Jerez. Thus these minor voyages seemed all to emanate from the great expeditions of Columbus, and to aim at realizing the ideas and speculations contained in the papers transmitted by him to Spain.

The armament consisted of four caravels, and was fitted out at the port of Palos. The funds of Vicente Yanez were completely exhausted before he had fitted out his little squadron; he was obliged therefore to purchase on credit the sea stores and articles of traffic necessary for the enterprise. The merchants of Palos seem to have known how to profit by the careless nature of sailors and the sanguine spirit of discoverers. In their bargains they charged honest Pinzon eighty and a hundred per cent above the market value of their

merchandise, and in the hurry and urgency of the moment he was obliged to submit to the imposition.

The squadron put to sea in the beginning of December, 1499, and after passing the Canary and Cape de Verde Islands, stood to the southwest. Having sailed about seven hundred leagues, they crossed the equator and lost sight of the north star. They had scarcely passed the equinoctial line when they encountered a terrible tempest, which had well nigh swallowed up their slender barks. The storm passed away, and the firmament was again serene; but the mariners remained tossing about in confusion, dismayed by the turbulence of the waves and the strange aspect of the heavens. They looked in vain to the south for some polar star by which to shape their course, and fancied that some swelling prominence of the globe concealed it from their view. They knew nothing as yet of the firmament of that hemisphere, nor of that beautiful constellation the southern cross, but expected to find a guiding star at the opposite pole, similar to the cynosure of the north.

Pinzon, however, who was of an intrepid spirit, pursued his course resolutely to the west, and after sailing about two hundred and forty leagues, and being in the eighth degree of southern latitude, he beheld land afar off on the 28th of January, to which he gave the name of Santa Maria de la Consolacion, from the sight of it having consoled him in the midst of doubts and perplexities. It is now called Cape St. Augustine, and forms the most prominent part of the immense empire of Brazil.

The sea was turbid and discolored as in rivers, and

on sounding they had sixteen fathoms water. Pinzon landed, accompanied by a notary and witnesses, and took formal possession of the territory for the Castilian crown; no one appeared to dispute his pretensions, but he observed on the beach the print of footsteps, which seemed of gigantic size.

At night there were fires lighted upon a neighboring part of the coast, which induced Pinzon on the following morning to send forty men well armed to the spot. A band of Indians, of about equal number, sallied forth to encounter them, armed with bows and arrows, and seemingly of extraordinary stature. A still greater number were seen in the distance, hastening to the support of their companions. The Indians arrayed themselves for combat, and the two parties remained for a short time eying each other with mutual curiosity and distrust. The Spaniards now displayed looking-glasses, beads, and other trinkets, and jingled strings of hawks' bells, in general so captivating to an Indian ear; but the haughty savages treated all their overtures with contempt, regarding these offerings carelessly for a short time, and then stalking off with stoic gravity. They were ferocious of feature, and apparently warlike in disposition, and are supposed to have been a wandering race of unusual size, who roamed about in the night, and were of the most fierce untractable nature. By nightfall there was not an Indian to be seen in the neighborhood.

Discouraged by the inhospitable character of the coast, Pinzon made sail and stood to the north-west, until he came to the mouth of a river too shallow to receive his ships. Here he sent his boats on shore with

a number of men well armed. They landed on the river banks, and beheld a multitude of naked Indians on a neighboring hill. A single Spaniard armed simply with sword and buckler, was sent to invite them to friendly intercourse. He approached them with signs of amity, and threw to them a hawk's bell. They replied to him with similar signs, and threw to him a small gilded wand. The soldier stooped to pick it up, when suddenly a troop of savages rushed down to seize him; he threw himself immediately upon the defensive, with sword and target, and though but a small man, and far from robust, he handled his weapons with such dexterity and fierceness, that he kept the savages at bay, making a clear circle round him, and wounding several who attempted to break it. His unlooked-for prowess surprised and confounded his assailants, and gave time for his comrades to come to his assistance. The Indians then made a general assault, with such galling discharge of darts and arrows that almost immediately eight or ten Spaniards were slain, and many more wounded. The latter were compelled to retreat to their boats disputing every inch of ground. The Indians pursued them even into the water, surrounding the boats and seizing hold of the oars. The Spaniards made a desperate defence, thrusting many through with their lances, and cutting down and ripping up others with their swords, but such was the ferocity of the survivors, that they persisted in their attack until they overpowered the crew of one of the boats, and bore it off in triumph. With this they retired from the combat, and the Spaniards returned defeated and disheartened to their ships, having

met with the roughest reception that the Europeans had yet experienced in the New World.

Pinzon now stood forty leagues to the north-west, until he arrived in the neighborhood of the equinoctial line. Here he found the water of the sea so fresh that he was enabled to replenish his casks with it. Astonished at so singular a phenomenon he stood in for the land, and arrived among a number of fresh and verdant islands inhabited by a gentle and hospitable race of people, gayly painted, who came off to the ships with the most frank and fearless confidence. Pinzon soon found that these islands lay in the mouth of an immense river, more than thirty leagues in breadth, the water of which entered upwards of forty leagues into the sea before losing its sweetness. It was, in fact, the renowned Marañon, since known as the Orellana and the Amazon. While lying in the mouth of this river there was a sudden swelling of the stream, which, being opposed by the current of the sea, and straitened by the narrow channels of the islands, rose more than five fathoms, with mountain waves, and a tremendous noise, threatening the destruction of the ships. Pinzon extricated his little squadron with great difficulty from this perilous situation, and finding there was but little gold, or any thing else of value to be found among the simple natives, he requited their hospitality, in the mode too common among the early discoverers, by carrying off thirty-six of them captive.

Having regained the sight of the Polar Star, Pinzon pursued his course along the coast, passing the mouths of the Oronoko, and entering the Gulf of Paria, where he landed and cut Brasil wood. Sallying forth

by the Boca del Drago, he reached the island of Hispaniola about the 23d of June, from whence he sailed for the Bahamas. Here, in the month of July, while at anchor, there came such a tremendous hurricane that two of the caravels were swallowed up with all their crews in the sight of their terrified companions; a third parted her cables and was driven out to sea, while the fourth was so furiously beaten by the tempest that the crew threw themselves into the boats and made for shore. Here they found a few naked Indians, who offered them no molestation; but, fearing that they might spread the tidings of a handful of shipwrecked Spaniards being upon the coast, and thus bring the savages of the neighboring islands upon them, a council of war was held whether it would not be a wise precaution to put these Indians to death. Fortunately for the latter, the vessel which had been driven from her anchors returned and put an end to the alarm, and to the council of war. The other caravel also rode out the storm uninjured, and the sea subsiding, the Spaniards returned on board, and made the best of their way to the Island of Hispaniola. Having repaired the damages sustained in the gale, they again made sail for Spain, and came to anchor in the river before Palos, about the end of September.

Thus ended one of the most checkered and disastrous voyages that had yet been made to the New World. Yañez Pinzon had lost two of his ships, and many of his men; what made the loss of the latter more grievous was, that they had been enlisted from among his neighbors, his friends, and relatives. In fact, the expeditions to the New World must have

realized the terrors and apprehensions of the people of Palos by filling that little community with widows and orphans. When the rich merchants, who had sold goods to Pinzon at a hundred per cent advance, beheld him return in this sorry condition, with two shattered barks and a handful of poor, tattered, weather-beaten seamen, they began to tremble for their money. No sooner, therefore, had he and his nephews departed to Granada, to give an account of their discoveries to the sovereigns, than the merchants seized upon their caravels and cargoes, and began to sell them, to repay themselves. Honest Pinzon immediately addressed a petition to the government, stating the imposition that had been practised upon him, and the danger he was in of imprisonment and utter ruin, should his creditors be allowed to sacrifice his goods at a public sale. He petitioned that they might be compelled to return the property thus seized, and that he might be enabled to sell three hundred and fifty quintals of Brazil wood, which he had brought back with him, and which would be sufficient to satisfy the demands of his creditors. The sovereigns granted his prayer. They issued an order to the civil authorities of Palos to interfere in the matter, with all possible promptness and brevity, allowing no vexatious delay, and administering justice so impartially that neither of the parties should have cause to complain.

Pinzon escaped from the fangs of his creditors, but, of course, must have suffered in purse from the expenses of the law; which, in Spain is apt to bury even a successful client, under an overwhelming mountain of documents and writings. We infer this in respect to

Pinzon from a royal order issued in the following year, allowing him to export a quantity of grain, in consideration of the heavy losses he had sustained in his voyage of discovery. He did but share the usual lot of the Spanish discoverers, whose golden anticipations too frequently ended in penury; but he is distinguished from among the crowd of them by being the first European who crossed the equinoctial line, on the western ocean, and by discovering the great kingdom of Brazil.

IN THE FOOTSTEPS OF COLUMBUS

(From The Companions of Columbus.)

By WASHINGTON IRVING.

OJEDA sailed from Port St. Mary on the 20th of May, 1499, and, having touched for supplies at the Canaries, took a departure from Gomara, pursuing the route of Columbus in his third voyage, being guided by the chart he had sent home, as well as by the mariners who had accompanied him on that occasion. At the end of twenty-four days he reached the continent of the new world, about two hundred leagues farther south than the part discovered by Columbus, being, as it is supposed, the coast of Surinam.

From hence he ran along the coast of the Gulf of Paria, passing the mouths of many rivers, but especially those of the Esquivo and the Oronoko. These, to the astonishment of the Spaniards, unaccustomed as yet to the mighty rivers of the new world, poured forth such a prodigious volume of water, as to freshen the sea for a great extent. They beheld none of the natives until

they arrived at the Island of Trinidad, on which island they met with traces of the recent visit of Columbus.

Vespucci, in his letters, gives a long description of the people of this island and of the coast of Paria, who were of the Carib race, tall, well made and vigorous, and expert with the bow, the lance and the buckler. His description, in general, resembles those which have frequently been given of the Aboriginals of the New World; there are two or three particulars, however, worthy of citation.

They appeared, he said, to believe in no religious creed, to have no place of worship, and to make no prayers or sacrifices; but, he adds, from the voluptuousness of their lives, they might be considered Epicureans. Their habitations were built in the shape of bells; of the trunks of trees, thatched with palm leaves, and were proof against wind and weather. They appeared to be in common, and some of them were of such magnitude as to contain six hundred persons: in one place there were eight principal houses capable of sheltering nearly ten thousand inhabitants. Every seven or eight years the natives were obliged to change their residence, from the maladies engendered by the heat of the climate in their crowded habitations.

Their riches consisted in beads and ornaments made from the bones of fishes; in small white and green stones strung like rosaries, with which they adorned their persons, and in the beautiful plumes of various colors for which the tropical birds are noted.

The Spaniards smiled at their simplicity in attaching an extraordinary value to such worthless trifles; while the savages, in all probability, were equally surprised

at beholding the strangers so eager after gold, and pearls and precious stones, which to themselves were objects of indifference.

Their manner of treating the dead was similar to that observed among the natives of some of the islands. Having deposited the corpse in a cavern or sepulchre, they placed a jar of water and a few eatables at its head, and then abandoned it without moan or lamentation. In some parts of the coast, when a person was considered near his end his nearest relatives bore him to the woods, and laid him in a hammock suspended to the trees. They then danced round him until evening, when, having left within his reach sufficient meat and drink to sustain him for four days, they repaired to their habitations. If he recovered and returned home, he was received with much ceremony and rejoicing; if he died of his malady or of famine, nothing more was thought of him.

Their mode of treating a fever is also worthy of mention. In the height of the malady they plunged the patient in a bath of the coldest water, after which they obliged him to make many evolutions round a great fire, until he was in a violent heat, when they put him to bed, that he might sleep: a treatment, adds Amerigo Vespucci, by which he saw many cured.

After touching at various parts of Trinidad and the Gulf of Paria, Ojeda passed through the strait of the Boca del Drago, or Dragon's Mouth, which Columbus had found so formidable, and then steered his course along the coast of Terra Firma, landing occasionally until he arrived at Curiana, or the Gulf of Pearls. From hence he stood to the opposite island of Marga-

rita, previously discovered by Columbus, and since renowned for its pearl fishery. This, as well as several adjacent islands, he visited and explored; after which he returned to the main land, and touched at Cumana and Maracapana, where he found the rivers infested with alligators resembling the crocodiles of the Nile.

Finding a convenient harbor at Maracapana he unloaded and careened his vessels there, and built a small brigantine. The natives came to him in great numbers, bringing abundance of venison, fish, and cassava bread, and aiding the seamen in their labors. Their hospitality was not certainly disinterested, for they sought to gain the protection of the Spaniards, whom they reverenced as superhuman beings. When they thought they had sufficiently secured their favor, they represented to Ojeda that their coast was subjected to invasion from a distant island, the inhabitants of which were cannibals, and carried their people into captivity, to be devoured at their unnatural banquets. They besought Ojeda, therefore, to avenge them upon these ferocious enemies.

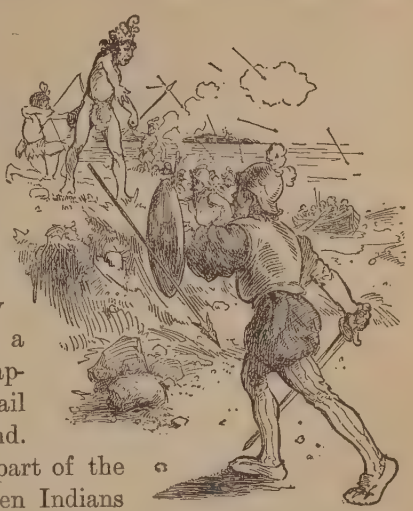
The request was gratifying to the fighting propensities of Alonzo de Ojeda, and to his love of adventure, and was readily granted. Taking seven of the natives on board of his vessels, therefore, as guides, he set sail in quest of the cannibals. After sailing for seven days he came to a chain of islands, some of which were peopled, others uninhabited, and which are supposed to have been the Caribbee Islands. One of these was pointed out by his guides as the habitation of their foes. On running near the shore he beheld it thronged with savage warriors, decorated with coronets of gaudy

plumes, their bodies painted with a variety of colors. They were armed with bows and arrows, with darts, lances, and bucklers, and seemed prepared to defend their island from invasion.

This show of war was calculated to rouse the martial spirit of Ojeda. He brought his ships to anchor, ordered out his boats, and provided each with a paterero or small cannon. Beside the oarsmen, each boat contained a number of soldiers, who were told to crouch out of sight in the bottom. The boats then pulled in steadily for the shore. As they approached the Indians let fly a cloud of arrows, but without much effect. Seeing the boats continue to advance, the savages threw themselves into the sea, and brandished their lances to prevent their landing. Upon this, the soldiers sprang up in the boats and discharged the patereroes. At the sound and smoke of these unknown weapons the savages abandoned the water in affright, while Ojeda and his men leaped on shore and pursued them. The Carib warriors rallied on the banks, and fought for a long time with that courage peculiar to their race, but were at length driven to the woods, at the edge of the sword, leaving many killed and wounded on the field of battle.

On the following day the savages were seen on the shore in still greater numbers, armed and painted, and decorated with war plumes, and sounding defiance with their conchs and drums. Ojeda again landed with fifty-seven men, whom he separated into four companies and ordered them to charge the enemy from different directions. The Caribs fought for a time hand to hand, displaying great dexterity in covering themselves

with their bucklers, but were at length entirely routed and driven, with great slaughter, to the forests. The Spaniards had but one man killed and twenty-one wounded in these combats, — such superior advantage did their armor give them over the naked savages. Having plundered and set fire to the houses they returned triumphantly to their ships, with a number of Carib captives; and made sail for the main land. Ojeda bestowed a part of the spoil upon the seven Indians who had accompanied him as guides, and sent them exulting to their homes, to relate to their countrymen the signal vengeance that had been wreaked upon their foes. He then anchored in a bay where he remained for twenty days until his men had recovered from their wounds.



Ojeda Charging the Enemy.

His crew being refreshed and the wounded sufficiently recovered, Ojeda made sail, and touched at the island of Curazao, which, according to the accounts of Vespucci, was inhabited by a race of giants, "every woman appearing a Penthesilea, and every man an Antæus." As Vespucci was a scholar, and as he supposed himself exploring the regions of the extreme East,

the ancient realm of fable, it is probable his imagination deceived him, and construed the formidable accounts given by the Indians of their cannibal neighbors of the islands, into something according with his recollections of classic fable. Certain it is that the reports of subsequent voyagers proved the inhabitants of the island to be of the ordinary size.

Proceeding along the coast he arrived at a vast deep gulf, resembling a tranquil lake; entering which, he beheld on the eastern side a village, the construction of which struck him with surprise. It consisted of twenty large houses, shaped like bells, and built on piles driven into the bottom of the lake, which, in this part, was limpid and of but little depth. Each house was provided with a drawbridge, and with canoes by which the communication was carried on. From these resemblances to the Italian city, Ojeda gave to the bay the name of the Gulf of Venice: and it is called at the present day Venezuela, or little Venice: the Indian name was Coquibacoa.

When the inhabitants beheld the ships standing into the bay, looking like wonderful and unknown apparitions from the deep, they fled with terror to their houses, and raised the drawbridges. The Spaniards remained for a time gazing with admiration at this amphibious village, when a squadron of canoes entered the harbor from the sea. On beholding the ships they paused in mute amazement, and on the Spaniards attempting to approach them, paddled swiftly to shore, and plunged into the forest. They soon returned with sixteen young girls, whom they conveyed in their canoes to the ships, distributing four on board of each,

either as peace offerings or as tokens of amity and confidence. The best of understanding now seemed to be established; and the inhabitants of the village came swarming about the ships in their canoes, and others swimming in great numbers from the shores.

The friendship of the savages, however, was all delusive. On a sudden several old women at the doors of the houses uttered loud shrieks, tearing their hair in fury. It appeared to be a signal for hostility. The sixteen nymphs plunged into the sea and made for shore; the Indians in the canoes caught up their bows and discharged a flight of arrows, and even those who were swimming brandished darts and lances, which they had hitherto concealed beneath the water.

Ojeda was for a moment surprised at seeing war thus starting up on every side, and the very sea bristling with weapons. Manning his boats, he immediately charged amongst the thickest of the enemy, shattered and sunk several of their canoes, killed twenty Indians and wounded many more, and spread such a panic among them, that most of the survivors flung themselves into the sea and swam to shore. Three of them were taken prisoners, and two of the fugitive girls, and were conveyed on board of the ships, where the men were put in irons. One of them, however, and the two girls succeeded in dexterously escaping the same night.

Ojeda had but five men wounded in the affray, all of whom recovered. He visited the houses, but found them abandoned and destitute of booty; notwithstanding the unprovoked hostility of the inhabitants, he spared the buildings, that he might not cause useless irritation along the coast.

Continuing to explore this gulf, Ojeda penetrated to a port or harbor, to which he gave the name of St. Bartholomew, but which is supposed to be the same at present known by the original Indian name of Maracaibo. Here, in compliance with the entreaties of the natives, he sent a detachment of twenty-seven Spaniards on a visit to the interior. For nine days they were conducted from town to town, and feasted and almost idolized by the Indians, who regarded them as angelic beings, performing their national dances and games, and chanting their traditional ballads for their entertainment.

The natives of this part were distinguished for the symmetry of their forms; the females in particular appeared to the Spaniards to surpass all others that they had yet beheld in the New World for grace and beauty. . . .

By the time the Spaniards set out on their return to the ship, the whole country was aroused, pouring forth its population, male and female, to do them honor. Some bore them in litters or hammocks, that they might not be fatigued with the journey, and happy was the Indian who had the honor of bearing a Spaniard on his shoulders across a river. Others loaded themselves with the presents that had been bestowed on their guests, consisting of rich plumes, weapons of various kinds, and tropical birds and animals. In this way they returned in triumphant procession to the ships; the woods and shores resounding with their songs and shouts.

Many of the Indians crowded into the boats that took the detachment to the ships; others put off in

canoes, or swam from shore, so that in a little while the vessels were thronged with upwards of a thousand wondering natives. While gazing and marvelling at the strange objects around them, Ojeda ordered the cannon to be discharged, at the sound of which, says Vespucci, the Indians "plunged into the water like so many frogs from a bank." Perceiving, however, that it was done in harmless mirth, they returned on board, and passed the rest of the day in great festivity. The Spaniards brought away with them several of the beautiful and hospitable females from this place, one of whom, named by them Isabel, was much prized by Ojeda, and accompanied him in a subsequent voyage.

Leaving the friendly port of Coquibacoa, Ojeda continued along the western shores of the gulf of Venezuela, and standing out to sea, and doubling Cape Maracaibo, he pursued his coasting voyage from port to port, and promontory to promontory, of this unknown continent, until he reached that long stretching headland called Cape de la Vela. There the state of his vessels, and perhaps the disappointment of his hopes at not meeting with abundant sources of immediate wealth, induced him to abandon all further voyaging along the coast, and changing his course, he stood across the Caribbean Sea for Hispaniola. The tenor of his commission forbade his visiting that island; but Ojeda was not a man to stand upon trifles when his interest or inclination prompted the contrary. He trusted to excuse the infraction of his orders by the alleged necessity of touching at the island to caulk and refit his vessels, and to procure provisions. His true

object, however, is supposed to have been to cut dye-wood, which abounds in the western part of Hispaniola.

He accordingly anchored at Yaquimo in September, and landed with a large party of his men. Columbus at that time held command of the island, and, hearing of this unlicensed intrusion, despatched Francesco Rolden, the quondam rebel, to call Ojeda to account. The contest of stratagem and management that took place between these two adroit and daring adventurers has been detailed in the "History of Columbus."

Rolden was eventually successful, and Ojeda, being obliged to leave Hispaniola, resumed his rambling voyage, visiting various islands, from whence he carried off numbers of the natives. He at length arrived at Cadiz in June, 1500, with his ships crowded with captives, whom he sold as slaves. So meagre, however, was the result of this expedition, that we are told when all the expenses were deducted, but five hundred ducats remained to be divided between fifty-five adventurers.

JOHN CABOT AND THE FIRST ENGLISH VOYAGE TO AMERICA

By RAIMONDO DI SONCINO.

(Translated by Clements R. Markham.)

18th December, 1497.

My most illustrious and most excellent Lord, —

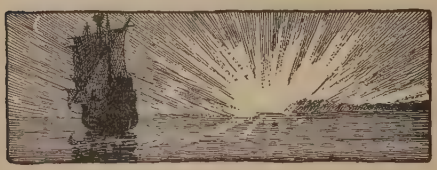
PERHAPS amidst so many occupations of your Excellency it will not be unwelcome to learn how his Majesty has acquired a part of Asia without drawing his sword. In this kingdom there is a certain Venetian named Zoanne Caboto, of gentle disposition, very expert in navigation, who, seeing that the most serene Kings of Portugal and Spain had occupied unknown islands, meditated the achievement of a similar acquisition for the said Majesty. Having obtained royal privileges securing to himself the use of the dominions he might discover, the sovereignty being reserved to the Crown, he entrusted his fortune to a small vessel with a crew of eighteen persons, and set out from Bristo, a port in the western part of this kingdom. Having passed Ibernia, which is still further to the west, and then shaped a northerly course, he began to navigate to the eastern part, leaving (during several

days) the north star on the right hand; and having wandered thus far a long time, at length he hit upon land, where he hoisted the royal standard, and took possession for this Highness, and, having obtained various proofs of his discovery, he returned. The said Messer Zoanne, being a foreigner and poor, would not have been believed if the crew, who are nearly all English, and belonging to Bristo, had not testified that what he said was the truth. This Messer Zoanne has the description of the world on a chart, and also on a solid sphere which he has constructed, and on which he shows where he has been; and, proceeding towards the east, he has passed as far as the country of the Tanais. And they say that there the land is excellent and temperate, suggesting that Brazil [dyewood] and silk grow there. They affirm that the sea is full of fish, which are not only taken with a net, but also with a basket, a stone being fastened to it in order to keep it in the water; and this I have heard stated by the said Messer Zoanne.

The said Englishmen, his companions, say that they took so many fish that this kingdom will no longer have need of Iceland, from which country there is an immense trade in the fish they call stock-fish. But Messer Zoanne has set his mind on higher things, for he thinks that, when that place has been occupied, he will keep on still further to the east, where he will be opposite to an island called Cipango, situated in the equinoctial region, where he believes that all the spices of the world, as well as the jewels are found. He further says that he was once at Mecca, whither the spices are brought by caravans from distant countries; and having inquired from whence they were brought

and where they grow, they answered they did not know, but that such merchandise was brought from distant countries by other caravans to their home; and they further say that they are also conveyed from other remote regions. And he adduced this argument, that if the eastern people tell those in the south that these things come from a far distance from them, presupposing the rotundity of the earth, it must be that the last turn would be by the north towards the west; and it is said that in this way the route would not cost more than it costs now, and I also believe it. And what is more, this Majesty, who is wise and not prodigal, reposes such trust in him because of what he has already achieved, that he gives him a good maintenance, as Messer Zoanne has himself told me. And it is said that before long his Majesty will arm some ships for him, and will give him all the malefactors to go to that country and form a colony, so that they hope to establish a greater depot of spices in London than there is in Alexandria. The principal people in the enterprise belong to Bristo. They are great seamen, and now that they know where to go, they say that the voyage thither will not occupy more than fifteen days after leaving Ibernia. I have also spoken with a Burgundian, who was a companion of Messer Zoanne, who affirms all this, and who wishes to return because the Admiral (for so Messer Zoanne is entitled) has given him an island, and has given another to his barber of Castione, who is a Genoese, and both look upon themselves as Counts; nor do they look upon my Lord the Admiral as less than a Prince. I also believe that some poor Italian friars are going on this voyage, who have

all had bishoprics promised to them. And if I had made friends with the Admiral when he was about to sail, I should have got an archbishopric at least; but I have thought that the benefits reserved for me by your Excellency will be more secure. I would venture to pray that, in the event of a vacancy taking place in my absence, I may be put in possession, and that I may not be superseded by those, who being present, can be more diligent than I, who am reduced in this country to eating at each meal ten or twelve kinds of victuals, and to being three hours at table every day, two for love of your Excellency, to whom I humbly recommend myself.



THE THIRD VOYAGE OF AMERIGO VESPUCCIO.

(From the Old South Leaflets.)

By HIMSELF.

IT pleased God to show us a new land on the 17th of August, and we anchored at a distance of half a league, and got our boats out. We then went to see the land, whether it was inhabited, and what it was like. We found that it was inhabited by people that were worse than animals. But your Magnificence must understand that we did not see them at first, though we were convinced that the country was inhabited, by many signs observed by us. We took possession for that Most Serene King, and found the land to be very pleasant and fertile, and of good appearance. It was five degrees to the south of the equinoctial line.

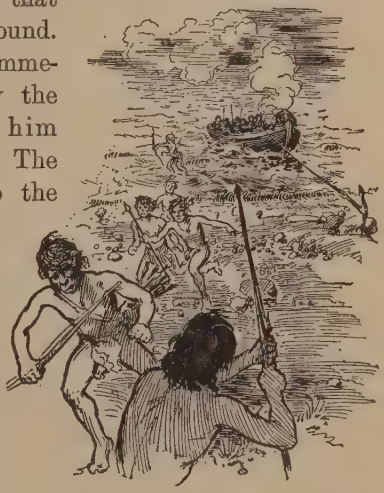
We went back to the ships; and, as we were in great want of wood and water we determined, next day, to return to the shore, with the object of obtaining what we wanted. Being on shore, we saw some people at the top of a hill, who were looking at us,

but without showing any intention of coming down. They were naked, and of the same color and form as the others we had seen. We tried to induce them to come and speak with us, but did not succeed, as they would not trust us. Seeing their obstinacy, and it being late, we returned on board, leaving many bells and mirrors on shore, and other things in their sight. As soon as we were at some distance on the sea, they came down from the hill, and showed themselves to be much astonished at the things. On that day we were only able to obtain water.

Next morning we saw from the ship that the people on shore had made a great smoke; and, thinking it was a signal to us, we went on shore, where we found that many people had come, but they still kept at a distance from us. They made signs to us that we should come inland with them. Two of our Christians were, therefore, sent to ask their captain for leave to go with them a short distance inland, to see what kind of people they were, and if they had any riches, spices, or drugs. The captain was contented, so they got together many things for barter, and parted from us, with instructions that they should not be more than five days absent as we would wait that time for them. So they set out on their road inland, and we returned to the ships to wait for them. Nearly every day people came to the beach, but they would not speak with us. On the seventh day we went on shore, and found that they had arranged with their women; for, as we jumped on shore, the men of the land sent many of their women to speak with us. Seeing that they were not reassured, we arranged to send to them one of our

people, who was a very agile and valiant youth. To give them more confidence, the rest of us went back into the boats. He went among the women, and they all began to touch and feel him, wondering at him exceedingly.

Things being so, we saw a woman come from the hill, carrying a great stick in her hand. When she came to where our Christian stood, she raised it, and gave him such a blow that he was felled to the ground.



The other women immediately took him by the feet, and dragged him towards the hill. The men rushed down to the beach, and shot at us with their bows and arrows. Our people, in great fear, hauled the boats towards their anchors, which were on shore; but, owing to the quantities of arrows that came into the boats, no one thought of taking up their arms. At last four rounds from the bombard were fired at them; and they no sooner heard the report than all ran away towards the hill, where the women were still tearing the Christian to pieces. At a great fire they had made they roasted him before our eyes, showing us many pieces, and then eating them. The men made signs how they had killed the other two

Christians and eaten them. What shocked us much was seeing with our eyes the cruelty with which they treated the dead, which was an intolerable insult to all of us.

We left this place, and commenced our navigation by shaping a course between east and south. Thus we sailed along the land, making many landings, seeing natives, but having no intercourse with them. We sailed on until we found that the coast made a turn to the west when we had doubled a cape, to which we gave the name of the Cape of St. Augustine. We then began to shape a course to the south-west. The cape is distant from the place where the Christians were murdered one hundred and fifty leagues towards the east, and this cape is 8° from the equinoctial line to the south. In navigating, we saw one day a great multitude of people on the beach, gazing at the wonderful sight of our ships. As we sailed, we turned the ships towards them, anchored in a good place, and went on shore with the boats. We found the people to be better conditioned than those we had met with before; and, responding to our overtures, they soon made friends, and treated with us. We were five days in this place, and found *canna fistola* very thick and green, and dry on the tops of the trees. We determined to take a pair of men from this place, that they might teach us their language, and three of them came voluntarily to go to Portugal.

Lest your Magnificence should be tired of so much writing, you must know that, on leaving this port, we sailed along on a westerly course, always in sight of land, continually making many landings, and speaking

with an infinite number of people. We were so far south that we were outside the Tropic of Capricorn, where the South Pole rises above the horizon 32°. We had lost sight altogether of Ursa Minor and Ursa Major, which were far below and scarcely seen on the horizon. We guided ourselves by the stars of the South Pole, which are numerous and much larger and brighter than those of our Pole. I traced the figure of the greater part of those of the first magnitude, with a declaration of their orbits round the South Pole, and of their diameters and semi-diameters, as may be seen in my Four Voyages. We sailed along that coast for seven hundred and fifty leagues, one hundred and fifty from the cape called St. Augustine to the west, and six hundred to the south.

Desiring to recount the things I saw on the coast, and what happened to us, as many leaves would not suffice me. On the coast we saw an infinite number of trees, Brazil wood and cassia, and those trees which yield myrrh, as well as other marvels of nature which I am unable to recount. Having now been ten months on the voyage, and having seen that there was no mining wealth whatever in that land, we decided upon taking leave of it, and upon sailing across the sea for some other part. Having held a consultation, it was decided that the course should be taken which seemed good to me; and the command of the fleet was intrusted to me. I gave orders that the fleet should be supplied with wood and water for six months, such being the decision of the officers of the ships. Having made our departure from this land, we began our navigation with a southerly course on the 15th of February, when

already the sun moved towards the equinoctial, and turned towards our Hemisphere of the North. We sailed so far on this course that we found ourselves where the South Pole had a height above our horizon of 52°, and we could no longer see the stars of Ursa Minor or of Ursa Major. We were then five hundred leagues to the south of the port whence we had departed, and this was on the 3d of April. On this day such a tempest arose on the sea that all our sails were blown away, and we ran under bare poles, with a heavy southerly gale and a tremendous sea, the air being very tempestuous. The gale was such that all the people in the fleet were much alarmed. The nights were very long, for the night we had on the 7th of April lasted fifteen hours, the sun being at the end of Aries, and in that region it was winter, as your Magnificence will be well aware. Sailing in this storm, on the 7th of April we came in sight of new land, along which we ran for nearly twenty leagues, and found it all a rock coast, without any port or inhabitants. I believe this was because the cold was so great that no one in the fleet could endure it. Finding ourselves in such peril, and in such a storm that we could scarcely see one ship from another, owing to the greatness of the waves and the blinding mist, it was agreed with the principal captain that a signal should be made to the ships that they should make for land, and then shape a course for Portugal. This was very good counsel, for it is certain that, if we had delayed another night, all would have been lost; for, as we wore round on the next day, we were met by such a storm that we expected to be swamped. We had to undertake pilgrimages and per-

form other ceremonies, as is the custom of sailors at such times.

We ran for five days, always coming towards the equinoctial line, where the air and sea became more temperate. It pleased God to deliver us from such peril. Our course was now between the north and north-east, for our intention was to reach the coast of Ethiopia, our distance from it being three hundred leagues, in the Gulf of the Atlantic Sea. By the grace of God, on the 10th of May, we came in sight of land, where we were able to refresh ourselves, the land being called La Serra Liona. We were there fifteen days, and thence shaped a course to the islands of the Azores, which are distant nearly seven hundred and fifty leagues from that Serra.

We reached the islands in the end of July, where we remained fifteen days, taking some recreation. Thence we departed for Lisbon, distant three hundred leagues to the west, and arrived at that port of Lisbon on the 7th of September, 1502, may God be thanked for our salvation, with only two ships. We burnt the other at Serra Liona, because she was no longer seaworthy. We were employed on this voyage nearly fifteen months; and for eleven days we navigated without seeing the North Star, nor the Great or Little Bears, which they call *el corno*, and we were guided by the stars of the other Pole. This is what I saw on the voyage.

DISCOVERY OF THE PACIFIC OCEAN BY VASCO NUÑEZ DE BALBOA

BALBOA IN DARIEN

One of the most picturesque figures in the early history of America is Balboa, a typical adventurer who sought gold and fame on the Spanish Main. A contemporary and companion of Columbus, he was one of the earliest visitors to America. He was young when first he came, and wild experiences he met on land and sea: shipwreck, mutiny, battle, treachery and murder,—hair-breadth escapes from foes animate and inanimate. In 1810 he joined the Ojeda expedition to Darien, in the party of Encisco. Their vessel was wrecked on the coast, and when the plucky adventurers had swum ashore, they found Ojeda's settlement in ashes. In another spot among less hostile Indians, they founded the town of Santa Maria Antigua de Darien, the first colony on the continent. Here the explorers fell to quarrelling, and Balboa found himself at the head of a faction, faithful to Ojeda, which finally conquered and banished Encisco from Darien. He now undertook an excursion into the interior, and soon received information of a great country to the south. Balboa's tact and kindness won the trust and affection of the Indians; and with their co-operation he was able to explore the Isthmus of Darien, little suspecting that this narrow strip of land was the connecting link between the great continents and the barrier separating two mighty oceans. But one memorable day being encamped at a little Indian village, he climbed to the top of a neighboring mountain, and became the first white man to gaze upon the great Pacific. Irving describes the touching scene as follows.

DISCOVERY OF THE PACIFIC OCEAN BY VASCO NUÑEZ DE BALBOA

(From The Companions of Columbus.)

By WASHINGTON IRVING.

THE day had scarcely dawned, when Vasco Nuñez and his followers set forth from the Indian village and began to climb the height. It was a severe and rugged toil for men so wayworn; but they were filled with new ardor at the idea of the triumphant scene that was so soon to repay them for all their hardships.

About ten o'clock in the morning they emerged from the thick forests through which they had hitherto struggled, and arrived at a lofty and airy region of the mountain. The bald summit alone remained to be ascended; and their guides pointed to a moderate eminence from which they said the southern sea was visible.

Upon this Vasco Nuñez commanded his followers to halt, and that no man should stir from his place. Then, with a palpitating heart, he ascended alone the bare mountain-top. On reaching the summit the long-desired prospect burst upon his view. It was as if a new world were unfolded to him, separated from all hitherto

known by this mighty barrier of mountains. Below him extended a vast chaos of rock and forest, and green savannahs and wandering streams, while at a distance the waters of the promised ocean glittered in the morning sun.

At this glorious prospect Vasco Nuñez sank upon his knees, and poured out thanks to God for being the first European to whom it was given to make that great discovery. He then called his people to ascend: "Behold, my friends," said he, "that glorious sight which we have so much desired. Let us give thanks to God that he has granted us this great honor and advantage. Let us pray to him to guide and aid us to conquer the sea and land which we have discovered, and which Christian has never entered to preach the holy doctrine of the Evangelists. As to yourselves, be as you have hitherto been, faithful and true to me, and by the favor of Christ you will become the richest Spaniards that have ever come to the Indies; you will render the greatest services to your king that ever vassal rendered to his lord; and you will have the eternal glory and advantage of all that is here discovered, conquered, and converted to our holy Catholic faith."

The Spaniards answered this speech by embracing Vasco Nuñez and promising to follow him to death. Among them was a priest, named Andres de Vara, who lifted up his voice and chanted *Te Deum laudamus* — the usual anthem of Spanish discoverers. The rest, kneeling down, joined in the strain with pious enthusiasm and tears of joy; and never did a more sincere oblation arise to the deity from a sanctified altar, than from that wild mountain summit. It was indeed one

of the most sublime discoveries that had yet been made in the New World, and must have opened a boundless field of conjecture to the wondering Spaniards. The imagination delights to picture forth the splendid confusion of their thoughts. Was this the great Indian ocean, studded with precious islands, abounding in gold, in gems and spices, and bordered by the gorgeous cities and wealthy marts of the East? or was it some lonely sea locked up in the embraces of savage, uncultivated continents, and never traversed by a bark, excepting the light pirogue of the savage? The latter could hardly be the case, for the natives had told the Spaniards of golden realms, and populous and powerful and luxurious nations upon its shores. Perhaps it might be bordered by various people, civilized in fact, though differing from Europe in their civilization; who might have peculiar laws and customs and arts and sciences; who might form, as it were, a world of their own, intercommuning by this mighty sea, and carrying on commerce between their own islands and continents; but who might exist in total ignorance and independence of the other hemisphere.

Such may naturally have been the ideas suggested by the sight of this unknown ocean. It was the prevalent belief of the Spaniards, however, that they were the first Christians who had made the discovery. Vasco Nuñez, therefore, called upon all present to witness that he took possession of that sea, its islands, and surrounding lands, in the name of the sovereigns of Castile, and the notary of the expedition made a testimonial of the same, to which all present, to the number of sixty-seven men, signed their names. He then caused

a fair and tall tree to be cut down and wrought into a cross, which was elevated on the spot from whence he had first beheld the sea. A mound of stones was likewise piled up to serve as a monument, and the names of the Castilian sovereigns were carved on the neighboring trees. The Indians beheld all these ceremonials and rejoicings in silent wonder, and, while they aided to erect the cross and pile up the mound of stones, marvelled exceedingly at the meaning of these monuments, little thinking that they marked the subjugation of their land.

The memorable event here recorded took place on the 26th of September, 1513; so that the Spaniards had spent twenty days in performing the journey from the province of Careta to the summit of the mountain, a distance which at present, it is said, does not require more than six days' travel. Indeed the isthmus in this neighborhood is not more than eighteen leagues in breadth in its widest part, and in some places merely seven; but it consists of a ridge of extremely high and rugged mountains.

PONCE DE LEON'S SEARCH

(From The Companions of Columbus.)

By WASHINGTON IRVING.

JUAN PONCE DE LEON resigned the command of Porto Rico with tolerable grace. The loss of one wild island and wild government was of little moment, when there was a new world to be shared out, where a bold soldier like himself, with sword and buckler, might readily carve out new fortunes for himself. Beside, he had now amassed wealth to assist him in his plans, and, like many of the early discoverers, his brain was teeming with the most romantic enterprises. He had conceived the idea that there was yet a third world to be discovered, and he hoped to be the first to reach its shores, and thus to secure a renown equal to that of Columbus.

While cogitating these things, and considering which way he should strike forth in the unexplored regions around him, he met with some old Indians, who gave him tidings of a country which promised, not merely to satisfy the cravings of his ambition, but to realize the

fondest dreams of the poets. They assured him that, far to the north, there existed a land abounding in gold and in all manner of delights; but, above all, possessing a river of such wonderful virtue, that whoever bathed in it would be restored to youth! They added, that in times past, before the arrival of the Spaniards, a large party of the natives of Cuba had departed northward in search of this happy land and this river of life, and, having never returned, it was concluded that they were flourishing in renovated youth, detained by the pleasures of that enchanting country.

Here was the dream of the alchymist realized! one had but to find this gifted land and revel in the enjoyment of boundless riches and perennial youth! Nay, some of the ancient Indians declared that it was not necessary to go so far in quest of these rejuvenating waters, for that, in a certain island of the Bahama group, called Bimini, which lay far out in the ocean, there was a fountain possessing the same marvellous and inestimable qualities.

Juan Ponce de Leon listened to these tales with fond credulity. He was advancing in life, and the ordinary term of existence seemed insufficient for his mighty plans. Could he but plunge into this marvellous fountain or gifted river, and come out with his battered, war-worn body restored to the strength and freshness and suppleness of youth, and his head still retaining the wisdom and knowledge of age, what enterprises might he not accomplish in the additional course of vigorous years insured to him!

It may seem incredible, at the present day, that a

man of years and experience could yield any faith to a story which resembles the wild fiction of an Arabian tale; but the wonders and novelties breaking upon the world in that age of discovery almost realized the illusions of fable, and the imaginations of the Spanish voyagers had become so heated that they were capable of any stretch of credulity.

So fully persuaded was the worthy old cavalier of the existence of the region described to him, that he fitted out three ships at his own expense to prosecute the discovery, nor had he any difficulty in finding adventurers in abundance ready to cruise with him in quest of this fairyland.

It was on the 3d of March, 1512, that Juan Ponce sailed with his three ships from the Port of St. Germain in the island of Porto Rico. He kept for some distance along the coast of Hispaniola, and then, stretching away to the northward, made for the Bahama islands, and soon fell in with the first of the group. He was favored with propitious weather and tranquil seas, and glided smoothly with wind and current along that verdant archipelago, visiting one island after another, until, on the fourteenth of the month, he arrived at Guanahani, or St. Salvador's, where Christopher Columbus had first put his foot on the shores of the New World. His inquiries for the island of Bimini were all in vain; and as to the fountain of youth, he may have drunk of every fountain, and river, and lake in the archipelago, even to the salt pools of Turk's Island, without being a whit the younger.

Still he was not discouraged; but, having repaired his ships, he again put to sea and shaped his course to

the north-west. On Sunday, the 27th of March, he came in sight of what he supposed to be an island, but was prevented from landing by adverse weather. He continued hovering about it for several days, buffeted by the elements, until, in the night of the second of April, he succeeded in coming to anchor under the land, in 30° 8′ of latitude. The whole country was in the fresh bloom of spring; the trees were gay with blossoms, and the fields covered with flowers; from which circumstance, as well as from having discovered it on Palm Sunday (Pascua Florida), he gave it the name of Florida, which it retains to the present day. The Indian name of the country was Cautio.

Juan Ponce landed, and took possession of the country in the name of the Castilian Sovereigns. He afterwards continued for several weeks ranging the coasts of this flowery land, and struggling against the gulf-stream and the various currents which sweep it. He doubled Cape Cañaveral, and reconnoitred the southern and eastern shores without suspecting that this was a part of Terra Firma. In all his attempts to explore the country, he met with resolute and implacable hostility on the part of the natives, who appeared to be a fierce and warlike race. He was disappointed also in his hopes of finding gold, nor did any of the rivers or fountains, which he examined, possess the rejuvenating virtue. Convinced, therefore, that this was not the promised land of Indian tradition, he turned his prow homeward on the fourteenth of June, with the intention, in the way, of making one more attempt to find the island of Bimini.

In the outset of his return he discovered a group of

islets abounding with sea-fowl and marine animals. On one of them, his sailors, in the course of a single night, caught one hundred and seventy turtles, and might have taken many more, had they been so inclined. They likewise took fourteen sea wolves, and killed a vast quantity of pelicans and other birds. To this group Juan Ponce gave the name of the Tortugas, or Turtles, which they still retain.

Proceeding in his cruise, he touched at another group of islets near the Lucayos, to which he gave the name of La Vieja, or the Old Woman group, because he found no inhabitant there but one old Indian woman. This ancient sibyl he took on board his ship to give him information about the labyrinth of islands into which he was entering, and perhaps he could not have had a more suitable guide in the eccentric quest he was making. Notwithstanding her pilotage, however, he was exceedingly baffled and perplexed in his return voyage among the Bahama islands, for he was forcing his way as it were against the course of nature, and encountering the currents which sweep westward along these islands, and the trade-wind which accompanies them. For a long time he struggled with all kinds of difficulties and dangers; and was obliged to remain upwards of a month in one of the islands, to repair the damages which his ship had suffered in a storm.

Disheartened at length by the perils and trials with which nature seemed to have beset the approach to Bimini, as to some fairy island in romance, he gave up the quest in person, and sent in his place a trusty captain, Juan Perez de Ortubia, who departed in one of the

other ships, guided by the experienced old woman of the isles, and by another Indian. As to Juan Ponce, he made the best of his way back to Porto Rico, where he arrived infinitely poorer in purse and wrinkled in brow, by this cruise after inexhaustible riches and perpetual youth.

He had not been long in port when his trusty envoy, Juan Perez, likewise arrived. Guided by the sage old woman, he had succeeded in finding the long-sought-for Bimini. He described it as being large, verdant, and covered with beautiful groves. There were crystal springs and limpid streams in abundance, which kept the island in perpetual verdure, but none that could restore to an old man the vernal greenness of his youth.

Thus ended the romantic expedition of Juan Ponce de Leon. Like many other pursuits of a chimera, it terminated in the acquisition of a substantial good. Though he had failed in finding the fairy fountain of youth, he had discovered in place of it the important country of Florida.

A VOYAGE ALONG THE ATLANTIC COAST

By CAPTAIN JOHN VERRAZANO.

(Translated by Joseph G. Cogswell.)

Verrazano.

ON the 17th of last January we set sail from a desolate rock near the island of Madeira, belonging to his most serene Majesty the King of Portugal, with fifty men; having provisions sufficient for eight months, arms, and other warlike munition and naval stores. Sailing westward with a light and pleasant easterly breeze, in twenty-five days we ran eight hundred leagues. On the 24th of February we encountered as violent a hurricane as any ship ever weathered, from which we escaped unhurt by the divine assistance and goodness, to the praise of the glorious and fortunate name of our good ship, that had been able to support the violent tossing of the waves.

Pursuing our voyage towards the west, a little northwardly, in twenty-four days more, having run four hundred leagues, we reached a new country which had never before been seen by any one either in ancient or modern times. At first it appeared to be very low; but

on approaching it to within a quarter of a league from the shore, we perceived, by the great fires near the coast, that it was inhabited. We perceived that it stretched to the south, and coasted along in that direction in search of some port in which we might come to an anchor and examine into the nature of the country; but for fifty leagues we could find none in which we could lie securely.

Seeing the coast still stretched to the south, we resolved to change our course and stand to the northward; and as we still had the same difficulty, we drew in with the land, and sent a boat on shore. Many people who were seen coming to the seaside, fled at our approach; but occasionally stopping, they looked back upon us with astonishment, and some were at length induced, by various friendly signs, to come to us. These showed the greatest delight on beholding us, wondering at our dress, countenances, and complexion. They then showed us by signs where we could more conveniently secure our boat, and offered us some of their provisions. That your Majesty may know all that we learned, while on shore, of their manners and customs of life, I will relate what we saw as briefly as possible. . . .

The complexion of these people is black, not much different from that of the Ethiopians. Their hair is black and thick, and not very long; it is worn tied back upon the head, in the form of a little tail. In person they are of good proportions, of middle stature, a little above our own; broad across the breast, strong in the arms, and well formed in the legs and other parts of the body. The only exception to their good

looks, is that they have broad faces; but not all, however, as we saw many that had sharp ones, with large black eyes and a fixed expression. They are not very strong in body, but acute in mind, active and swift of foot, as far as we could judge by observation. In these last two particulars they resemble the people of the East, especially those the most remote. We could not learn a great many particulars of their usages on account of our short stay among them and the distance of our ship from the shore.

We found, not far from this people, another, whose mode of life we judged to be similar. The whole shore is covered with fine sand, about fifteen feet thick, rising in the form of little hills, about fifty paces broad. Ascending farther, we found several arms of the sea, which make in through inlets, washing the shores on both sides as the coast runs. An outstretched country appears at a little distance, rising somewhat above the sandy shore, in beautiful fields and broad plains, covered with immense forests of trees more or less dense, too various in colors, and too delightful and charming in appearance to be described. I do not believe they are like the Hercynian forest, or the rough wilds of Scythia; and the northern regions full of vines and common trees; but adorned with palms, laurels, cypresses, and other varieties, unknown in Europe; that send forth the sweetest fragrance, to a great distance; but which we could not examine more closely for the reasons before given, and not on account of any difficulty in traversing the woods; which, on the contrary, are easily penetrated.

As the "East" stretches around this country, I think

it cannot be devoid of the same medicinal and aromatic drugs, and various riches of gold and the like, as is denoted by the color of the ground. It abounds also in animals, as the deer, stags, hares, and many other similar, and with a great variety of birds for every kind of pleasant and delightful sport. It is plentifully supplied with lakes and ponds of running water; and being in the latitude of 31°, the air is salubrious, pure, and temperate, and free from the extremes of both heat and cold. There are violent winds in these regions; the most prevalent are the north-west and west. In summer, the season in which we were there, the sky is clear, with but little rain. If fogs and mists are at any time driven in by the south wind, they are instantaneously dissipated, and at once it becomes serene and bright again. The sea is calm, not boisterous, and its waves are gentle. Although the whole coast is low and without harbors, it is not dangerous for navigation, being free from rocks, and bold, so that, within four or five fathoms from the shore, there is twenty-four feet of water at all times of tide; and this depth constantly increases in a uniform proportion. The holding ground is so good that no ship can part her cable, however violent the wind, as we proved by experience; for while riding at anchor on the coast, we were overtaken by a gale in the beginning of March, when the winds are high, as is usual in all countries; we found our anchor broken before it started from its hold or moved at all. . . .

We saw in this country many vines, growing naturally, which entwine about the trees, and run up upon them as they do in the plains of Lombardy. These

vines would doubtless produce excellent wine if they were properly cultivated and attended to, as we have often seen the grapes which they produce very sweet and pleasant, and not unlike our own. They must be held in high estimation by them (the natives), as they carefully remove the shrubbery from around them wherever they grow, to allow the fruit to ripen better. We found also, wild roses, violets, lilies, and many sorts of plants and fragrant flowers different from our own. We cannot describe their habitations, as they are in the interior of the country, but from various indications we conclude they must be formed of trees and shrubs. We saw also many grounds for conjecturing that they often slept in the open air, without any covering but the sky. Of their other usages we know nothing; we believe, however, that all the people we were among live in the same way.

After having remained here three days, riding at anchor on the coast, as we could find no harbor, we determined to depart, and coast along the shore to the north-east, keeping sail on the vessel only by day and coming to anchor by night. After proceeding one hundred leagues, we found a very pleasant situation among some steep hills, through which a very large river, deep at its mouth, forced its way to the sea; from the sea to the estuary of the river, any ship heavily laden might pass, with the help of the tide, which rises eight feet. But, as we were riding at anchor in a good berth, we would not venture up in our vessel, without a knowledge of the mouth: therefore we took the boat, and entering the river, we found the country on its banks well peopled, the inhabitants

not differing much from the others, being dressed out with the feathers of birds of various colors. They came towards us with evident delight, raising loud shouts of admiration, and showing us where we could most securely land with our boat. We passed up this river, about half a league, when we found it formed a most beautiful lake three leagues in circuit, upon which they were rowing thirty or more of their small boats, from one shore to the other, filled with multitudes who came to see us. All of a sudden, as is wont to happen to navigators, a violent contrary wind blew in from the sea, and forced us to return to our ship, greatly regretting to leave this region which seemed so commodious and delightful, and which we supposed must contain great riches, as the hills showed many indications of minerals. Weighing anchor, we sailed eighty leagues towards the east, as the coast stretched in that direction, and always in sight of it; at length we discovered an island of a triangular form, about ten leagues from the mainland, in size about equal to the island of Rhodes, having many hills covered with trees, and well peopled, judging from the great number of fires which we saw all around its shores; we gave it the name of your Majesty's mother.

We did not land there, as the weather was unfavorable, but proceeded to another place, fifteen leagues distant from the island, where we found a very excellent harbor. Before entering it, we saw about twenty small boats full of people, who came about our ship, uttering many cries of astonishment, but they would not approach nearer than within fifty paces; stopping, they looked at the structure of our ship, our persons

and dress, afterwards they all raised a loud shout together, signifying that they were pleased. . . . This is the finest looking tribe, and the handsomest in their costumes, that we have found in our voyage. They exceed us in size, and they are of a very fair complexion; some of them incline more to a white [bronze], and others to a tawny color; their faces are sharp, their hair long and black, upon the adorning of which they bestow great pains; their eyes are black and sharp, their expression mild and pleasant, greatly resembling the antique. . . .

This region is situated in the parallel of Rome, being 41° 40′ of north latitude; but much colder, from accidental circumstances, and not by nature, as I shall hereafter explain to your Majesty, and confine myself at present to the description of its local situation. It looks towards the south, on which side the harbor is half a league broad; afterwards, upon entering it, the extent between the coast and north is twelve leagues; and then enlarging itself, it forms a very large bay, twenty leagues in circumference, in which are five small islands of great fertility and beauty, covered with large and lofty trees. Among these islands any fleet, however large, might ride safely, without fear of tempests or other dangers. Turning towards the south, at the entrance of the harbor, on both sides, there are very pleasant hills, and many streams of clear water which flow down to the sea. In the midst of the entrance there is a rock of freestone, formed by nature, and suitable for the construction of any kind of machine or bulwark for the defence of the harbor.

Having supplied ourselves with everything necessary, on the fifth of May we departed from the port, and sailed one hundred and fifty leagues, keeping so close to the coast as never to lose it from our sight. The nature of the country appeared much the same as before; but the mountains were a little higher, and all, in appearance, rich in minerals. We did not stop to land, as the weather was very favorable for pursuing our voyage, and the country presented no variety. The shore stretched to the east; and fifty leagues beyond, more to the north, where we found a more elevated country full of very thick woods of fir trees, cypresses, and the like, indicative of a cold climate. The people were entirely different from the others we had seen, whom we had found kind and gentle; but these were so rude and barbarous that we were unable, by any sign we could make, to hold communication with them. . . .

Departing from thence, we kept along the coast, steering north-east, and found the country more pleasant and open, free from woods; and distant in the interior we saw lofty mountains, but none which extended to the shore. Within fifty leagues we discovered thirty-two islands, all near the mainland, small, and of pleasant appearance; but high, and so disposed as to afford excellent harbors and channels, as we see in the Adriatic Gulf, near Illyria and Dalmatia. We had no intercourse with the people; but we judge that they were similar in nature and usages to those we were last among. After sailing between east and north, the distance of one hundred and fifty leagues more, and finding our provisions and naval stores

nearly exhausted, we took in wood and water, and determined to return to France, having discovered five hundred and two, that is seven hundred leagues of unknown land. . . .

DISCOVERY OF THE ST. LAWRENCE

By CAPTAIN JACQUES CARTIER.

(Translated by Richard Hakluyt.)

Jacques Cartier.

AFTER that Sir Charles of Mouy knight lord of Meylleraye, and Vice-admirall of France had caused the Captaines, Masters, and Mariners of the shippes to be sworn to behaue themselues truely and faithfully in the seruice of the most Christian King of France, vnder the charge of the sayd Carthier, vpon the twentieth day of Aprill 1534, we departed from the Port of S. Malo with two ships of threescore tun apiece burden, and 61 well appointed men in each one; . . . The next day being the last of the moneth saue one, the winde blewe South and by East. Wee sailed Westward vntill Tuesday morning at Sunne rising, being the last of the moneth, without any sight or knowledge of any lande except in the euening toward Sunne set, that wee discouered a lande which seemed to be two Ilands, that were beyond vs West southwest, about nine or tenne leagues. All the next day till the next morning at sunne rising wee sailed Westward about fourtie leagues, and by the way we

perceiued that the land we had seene like Ilands, was firme land, lying South southeast, and North northwest, to a very good Cape of land called Cape Orleans. Al the said land is low and plaine, and the fairest that may possibly be seene, full of goodly medowes and trees. True it is that we could finde no harborough there, because it is all full of shelues and sands. We with our boats went on shore in many places, and among the rest wee entred into a goodly riuer, but very shallow, which we named The riuer of boats, because that there wee saw boates full of wild men that were crossing the riuer. . . .

VPon Thursday being the eight of the moneth, because the winde was not good to go out with our ships, we set our boates in a readinesse to goe to discouer the said Bay, and that day wee went 25. leagues within it. The next day the wind and weather being faire, we sailed vntil noone, in which time we had notice of a great part of the said Bay, and how that ouer the low lands, there were other lands with high mountaines: but seeing that there was no passage at all, wee began to turne back againe, taking our way along the coast; and sayling, we saw certaine wilde men . . . and by and by in clusters they came to the shore where wee were, with their boates, bringing with them skinnes and other such things as they had, to haue of our wares . . . til they had nothing but their naked bodies; for they gaue vs all whatsoeuer they had, and that was but of small value. We perceiued that this people might very easily be conuerted to our Religion. They goe from place to place. They liue onely with fishing. They haue an ordinarie time to fish for their prouision. The

countrey is hotter than the countrey of Spaine, and the fairest that can possibly be found, altogether smooth, and leuel. There is no place be it neuer so little, but it hath some trees (yea albeit it be sandie) or else is full of wilde corne, that hath an eare like vnto Rie: the corne is like oates, and smal peason as thicke as if they had bene sowen and plowed, white and red Roses, with many other flouers of very sweet and pleasant smell. There be also many goodly medowes full of grasse, and lakes wherein great plentie of salmons be. They call a hatchet in their tongue Cochi, and a knife Bacon: we named it The bay of heat.

. . . The Saturday following, being the first of August, by Sunne rising, wee had certaine other landes, lying North and Northeast, that were very high and craggie, and seemed to be mountaines: betweene which were other low lands with woods and riuers: wee went about the sayd lands, as well on the one side as on the other, still bending Northwest, to see if it were either a gulfe, or a passage, vntill the fift of the moneth. The distance from one land to the other is about fifteene leagues. The middle betweene them both is 50 degrees and a terce in latitude. We had much adoe to go fiue miles farther, the winds were so great and the tide against vs. And at fiue miles end, we might plainely see and perceiue land on both sides, which there beginneth to spread it selfe. . . .

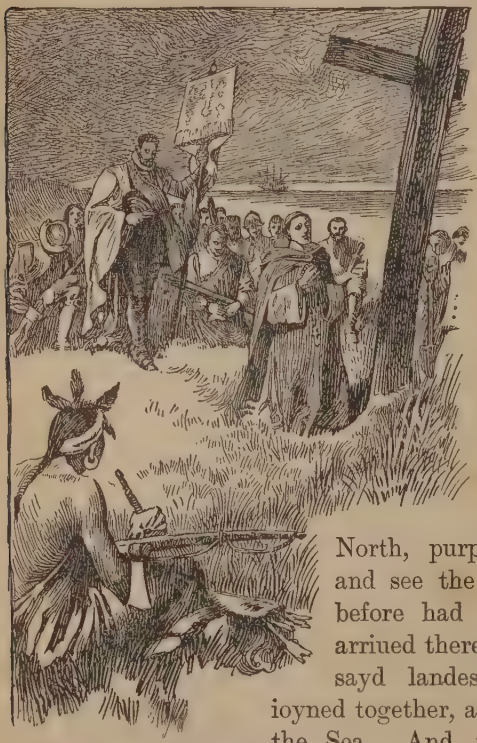
AFter we had sailed along the sayd coast, for the space of two houres, behold, the tide began to turne against vs, with so swift and raging a course, that it was not possible for vs with 13 oares to row or get one stones cast farther, so that we were constrained to leaue

our boates with some of our men to guard them, and 10 or 12 men went ashore to the sayd Cape, where we found that the land beginneth to bend Southwes , which hauing seene, we came to our boats againe, and so to our ships, which were stil ready vnder saile, h ping to go forward: but for all that, they were fallen more then foure leagues to leeward from the place where we had left them, where so soone as we came, wee assembled together all our Captaines, Masters, and Mariners, to haue their aduice and opinion what was best to be done; and after that euery one had said, considering that the Easterly winds began to beare away, and blow, and that the flood was so great, that we did but fall, and that there was nothing to be gotten, and that stormes and tempests began to reigne in Newfoundland, and that we were so farre from home, not knowing the perils and dangers that were behind, for either we must agree to returne home againe, or els to stay there all the yeere. More ouer, we did consider, that if the Northerne winds did take vs, it were not possible for vs to depart thence. All which opinions being heard and considered, we altogether determined to addresse our selues homeward. Nowe because vpon Saint Peters day wee entred into the sayd Streite, we named it Saint Peters Streite. . . .

In the yeere of our Lord 1535, vpon Whitsunday, being the 16. of May, by the commandement of our Captaine Iames Cartier, and with a common accord, in the Cathedrall Church of S. Malo we deuoutly each one confessed our seules, and receiued the Sacrament: and all entring into the Quier of the sayd Church, wee presented our seules before the Reuerend Father in Christ,

the Lord Bishop of S. Malo, who blessed vs all, being in his Bishops roabes. The Wednesday following, being the 19. of May, there arose a good gale of wind, and therefore we hoysed sayle with three ships. . . . We staied and rested our selues in the sayd hauen, vntill the seuenth of August being Sonday: on which day we hoysed sayle, and came toward land on the South side toward Cape Robast, distant from the sayd hauen about twentie leagues Northnortheast, and Southsouthwest: but the next day there rose a stormie and a contrary winde, and because we could find no hauen there toward the South, thence we went coasting along toward the North, beyond the aboue sayd hauen about ten leagues, where we found a goodly great gulfe, full of Islands, passages, and entrances, toward what wind soeuer you please to bend: for the knowledge of this gulfe there is a great Island that is like to a Cape of lande, stretching somewhat further foorth than the others, and about two leagues within the land, there is an hill fashioned as it were an heape of corne. We named the sayd gulfe Saint Laurence his bay. The twelfth of the sayd moneth wee went from the sayd Saint Laurence his Bay, or gulfe, sayling Westward, and discouered a Cape of land toward the South, that runneth West and by South, distant from the sayd Saint Laurence his Bay, about fiue and twenty leagues. . . . Moreouer, I beleeue that there were neuer so many Whales seen as wee saw that day about the sayd Cape. The next day after being our Ladie day of August the fifteenth of the moneth, hauing passed the Straight, we had notice of certaine lands that wee left toward the South, which landes are full of uery great and high

hilles, and this Cape wee named The Island of the Assumption, . . . The Countreys lying North may plainely be perceiued to be higher than the Southerly, more then thirty leagues in length. We trended the sayd landes about toward the South: from the sayd day vntill Tewesday noone following, the winde came West, and therefore wee bended toward the North, purposing to goe and see the land that we before had spied. Being arriued there, we found the sayd landes, as it were ioyned together, and low toward the Sea. And the Northerly mountaines that are vpon the sayd low lands stretch East, and West, and a quarter of the South. Our wild men told vs that there was the beginning of Saguenay, and that it was land inhabited, and that thence commeth the red Copper, of them



Cartier Erects a Cross.

named Caignetdaze. There is betweene the Southerly lands, and the Northerly about thirty leagues distance, and more than two hundreth fadome depth. The sayd men did moreouer certifie vnto vs, that there was the way and beginning of the great riuer of Hochelaga and ready way to Canada, which riuer the further it went the narrower it came, euen vnto Canada, and that then there was fresh water, which went so farre upwards, that they had neuer heard of any man who had gone to the head of it, and that there is no other passage but with small boates. . . . Vpon the first of September we departed out of the said hauen, purposing to go toward Canada; and about 15 leagues from it toward the West, and Westsouthwest, amidst the riuer, there are three Islands, ouer against the which there is a riuer which runneth swift, and is of great depth, and it is that which leadeth, and runneth into the countrey and kingdome of Saguenay, as by the two wild men of Canada it was told vs. This riuer passeth and runneth along very high and steepe hills of bare stone, where uery little earth is, and notwithstanding there is a great quantity of sundry sorts of trees that grow in the said bare stones, euen as vpon good and fertile ground, in such sort that we haue seene some so great as wel would suffise to make a mast for a ship of 30 tunne burden, and as greene as possibly can be, growing in a stony rocke without any earth at all. . . . The seuenth of the moneth being our Ladies euen, after seruice we went from that Iland to go vp higher into the riuer, and came to 14 Ilands seuen or eight leagues from the Iland of Filberds, where the countrey of Canada beginneth, one of which Ilands is ten leagues in length,

and fiue in bredth, greatly inhabited of such men as onely live by fishing of such sorts of fishes as the riuer affordeth, according to the season of them. . . . The next day following, the Lord of Canada (whose proper name was Donnacona, but by the name of Lord they call him Agouhanna) with twelue boats came to our ships, accompanied with many people, who causing ten of his boates to goe backe with the other two, approched vnto vs with sixteene men. . . . Our Captaine then caused our boates to be set in order, that with the next tide he might goe vp higher into the riuer, to find some safe harborough for our ships: and we passed vp the riuer against the streame about tenne leagues, coasting the said Iland, at the end whereof, we found a goodly and pleasant sound, where is a little riuer and hauen, where by reason of the flood there is about three fadome water. This place seemed to vs very fit and commodious to harbour our ships therein, and so we did very safely, we named it the holy Crosse, for on that day we came thither. Neere vnto it, there is a village, whereof Donnacona is Lord, and there he keepeth his abode: it is called Stadacona [Quebec] as goodly a plot of ground as possibly may be seene. . . . Hauing considered the place, and finding it fit for our purpose, our Captaine withdrew himselfe on purpose to returne to our ships: . . .

AFter we were come with our boats vnto our ships againe, our Captaine caused our barks to be made readie to goe on land in the said Iland, to note the trees that in shew seemed so faire, and to consider the nature and qualitie of it: which things we did, and found it full of goodly trees like to ours. Also we saw

many goodly Vines, a thing not before of vs seene in those countries, and therefore we named it Bacchus Iland. It is in length about twelue leagues, in sight very pleasant, but full of woods, no part of it manured, vnlesse it be in certaine places, where a few cottages be for Fishers dwellings as before we haue said. . . .

THe next day being the 19 of September we hoysed saile, and with our Pinnesse and two boates departed to goe vp the riuer with the flood, where on both shores of it we beganne to see as goodly a countrey as possibly can with eye be seene, all replenished with very goodly trees, and Vines laden as full of grapes as could be all along the riuer, which rather seemed to haue bin planted by mans hand than otherwise. True it is, that because they are not dressed and wrought as they should be, their bunches of grapes are not so great nor sweete as ours: . . . From the nineteenth vntill the eight and twentieth of September, we sailed vp along the saide riuer, neuer losing one houre of time, all which time we saw as goodly and pleasant a countrey as possibly can be wished for, . . .

THe next day our Captaine seeing for that time it was not possible for our Pinnesse to goe on any further, he caused our boats to be made readie, and as much munition and victuals to be put in them, as they could well beare: he departed with them, accompanyed with many Gentlemen, that is to say, Claudius of Ponte Briand, Cup-bearer to the Lorde Dolphin of France, Charles of Pommeraye, Iohn Gouion, Iohn Powlet, with twentie and eight Mariners: and Mace Iallobert, and William Briton, who had the charge vnder the Captaine of the other two ships, to goe vp as farre as they

could into that riuer: we sayled with good and prosperous weather vntill the second of October, on which day we came to the towne of Hochelaga, [Montreal] distant from the place where we had left our Pinnesse fiue and fortie leagues. . . .

THE DEATH OF DE SOTO

By "A PORTUGALL GENTLEMAN OF ELUAS."

(Translated by Richard Hakluyt.)

De Soto.

CAPTAINE SOTO was the son of a Squire of Xerez of Badaioz. He went into the Spanish Indies when Peter Arias of Auila was Gouernour of the West Indies: and there he was without any thing else of his owne, saue his sword and target: and for his good qualities and valour, Peter Arias made him Captaine of a troope of horsemen, and by his commandement hee went with Fernando Pizarro to the conquest of Peru: where (as many persons of credit reported, which were there present) as well at the taking of Atabalipa, Lord of Peru, as at the assault of the citie of Cusco, and in all other places where they found resistance, wheresoeuer hee was present, hee passed all other Captaines and principall persons. For which cause, besides his part of the treasure of Atabalipa, he had a good share: whereby in time he gathered an hundred and foure-score thousand Duckets together, with that which fell to his part: which he brought into Spaine: whereof the Emperour borrowed a certaine

part, which he repaied againe with 60,000 Rials of plate in the rent of the silkes of Granada, and all the rest was deliuered him in the contractation house of Siuil [Seville]. He tooke seruants, to wit, a Steward, a Gentleman Vsher, Pages, a Gentleman of the Horse, a Chamberlaine, Lakies, and al other officers that the house of a Noble mã requireth, . . . The Emperour made him the Gouernor of the Isle of Cuba, and Adelantado or President of Florida; with a title of Marques of a certaine part of the lands, that he should conquer.

On Sunday the 18th. of May, in the yeere of our Lord, 1539, the Adelantado or president departed from Hauana in Cuba with his fleete, which were nine vessels, fiue great ships, two carauels, and two brigantines: They sailed seuen daies with a prosperous wind. . . . On Friday the 30th. of May they landed in Florida, two leagues from a towne of an Indian Lord, called Vcita. . . .

. . . Hee left Captaine Calderan at the Port, with thirtie horsemen, and seuentie footemen, with prouision for two yeeres, and himselfe with all the rest marched into the maine land, and came to the Paracossi, at whose towne Baltasar de Gallegos was: and from thence with all his men tooke the way to Cale. . . .

This Riuer . . . was that which . . . fell into Rio grande, or the Great Riuer [Mississippi], which passed by Pachaha and Aquixo neere vnto the prouince of Guachoya: and the Lord thereof came vp the Riuer in canoes to make warre with him of Nilco. On his behalf there came an Indian to the Gouernour and said vnto him, that he was his seruant, and prayed him so to hold him, and that within two daies hee would come

to kisse his Lordships hands: and at the time appointed he came with some of his principal Indians, which accompanied him, and with words of great offers and courtesie hee gaue the Gouernour a present of many Mantles and Deeres skinnes. The Gouernour gaue him some other things in recompense, and honoured him much. Hee asked him what townes there were downe the Riuer? Hee answered that he knew none other but his owne: and on the other side of the Riuer a prouince of a Cacique called Quigalta. So hee tooke his leaue of the Gouernour and went to his owne towne. Within few daies the Gouernour determined to goe to Guachoya, to learne there whether the Sea were neere, or whether there were any habitation neere, where hee might relieue his companie, while the brigantines were making, which he meant to send to the land of the Christians. As he passed the Riuer of Nilco, there came in canoes Indians of Guachoya vp the streame, and when they saw him, supposing that he came to seeke them to doe them some hurt, they returned downe the Riuer, and informed the Cacique thereof: who with all his people, spoiling the towne of all that they could carrie away, passed that night ouer to the other side of Rio grande, or the great Riuer. The Gouernour sent a Captaine with fiftie men in sixe canoes downe the Riuer, and went himselfe by land with the rest: hee came to Guachoya vpon Sunday the 17th of April: he lodged in the towne of the Cacique, which was inclosed about, and seated a crossebow shot distant from the Riuer. . . .

The Gouernour fell into great dumps to see how hard it was to get to the Sea: and worse, because his men and horses euery day diminished, being without

succour to sustaine themselues in the country: and with that thought he fell sick, . . . being euill handled with feuers, and was much aggrieued, that he was not in case to passe presently the Riuer and to seeke him, to see if he could abate that pride of his, considering the Riuer went now very strongly in those parts; for it was neere halfe a league broad, and sixteen fathomes deep, and uery furious, and ranne with a great current; and on both sides there were many Indians, and his

Burial of de Soto.

power was not now so great, but that hee had need to helpe himselfe rather by flights than by force.

. . . the 21. of May, 1542. departed out of this life, the valorous, virtuous, and valiant Captaine, Don Fernando de Soto, Gouernour of Cuba, and Adelantado of Florida, whom fortune advanced, as it vseth to doe others, that hee might haue the higher fal [fall]. He departed in such a place, and at such a time, as in his sicknesse he had but little comfort: and the danger wherein all his people were of perishing in that Coun-

trie, which appeared before their eies was cause sufficient, why euery one of them had need of comfort, and why they did not visit nor accompanie him as they ought to haue done. Luys de Moscoso determined to conceale his death from the Indians, because Ferdinando de Soto had made them beleeue, That the Christians were immortall. . . .

As soone as he was dead, Luis de Moscoso commanded to put him secretly in an house, where hee remained three daies: and remoouing him from thence, commanded him to bee buried in the night at one of the gates of the towne within the wall. And as the Indians had seene him sick, and missed him, so did they suspect what might bee. And passing by the place where hee was buried, seeing the earth mooved, they looked and spake one to another. Luys de Moscoso vnderstanding of it, commanded him to be taken vp by night, and to cast a greate deale of sand into the mantles, wherein he was winded up, wherein he was carried in a canoe, and throwne into the middest of the Riuer. . . .

THE CORONADA EXPEDITION

The two following selections give account of one of the greatest and bravest expeditions in the early days of America; that of unfortunate General Francesco de Coronada in 1540. At that time Mexico was filled with greedy rumors of the rich cities in the mysterious, unexplored regions to the north. Friar Marcos de Neza, returning from a perilous journey, told glowing tales of the seven great cities of Cibola with their vast treasures. Thereupon Mendoza, the Viceroy of Mexico, fitted up a splendid expedition under brave General Coronada, to investigate the new country, to conquer it for the King, and bring back its gold for himself. In February, 1840, the army started from Compostela, on the Pacific coast of Mexico, a gallant array of two hundred and fifty Spanish cavaliers, with almost as many foot-soldiers, and a great following of Indian and negro servants. But the Friar's stories had been fairy tales. The Seven Cities were mere adobe villages of the Zuñi Indians in Arizona. And when Coronada came thither, as related in the narrative of Castañeda, which follows, the army was disappointed and disgusted to the verge of mutiny. At this juncture they received tidings of another golden city, Quivira, to the northeast, which encouraged them to proceed still further into the dangers of the wilderness, as related in the second account by Captain Jaramillo. Led on a false errand by the Indians who

hoped to see their white enemies perish in the unheard-of undertakings, the weary, anxious adventurers crossed the vast plains of our Western States, discovered the Colorado River with its mighty cañons, and penetrated even to the borders of Kansas and Nebraska, where they found Quivira a disappointment like Cibola. Thence Coronada with his remnant of an army retraced the weary way homeward, suffering indescribable privations and perils at every stage. They reached Mexico in the winter of 1542, "very sad and very weary, completely worn out and shamefaced." All considered the expedition an utter failure. Yet they had accomplished a marvellous journey, and had left the first records of a region which, though Coronada reported it to his King as "not fit to be colonized," was to become most valuable and important States, large enough and rich enough for an empire in themselves.

THE NARRATIVE OF CASTAÑEDA

(From The Coronada Expedition.)

By GEORGE PARKER WINSHIP.

THE general, as has been said, started to continue his journey from the valley of Culiacan somewhat lightly equipped, taking with him the friars, since none of them wished to stay behind with the army. . . . The general and his force crossed the country without trouble, as they found everything peaceful, because the Indians knew Friar Marcos and some of the others who had been with Melchior Diaz when he went with Juan de Saldibar to investigate.

After the general had crossed the inhabited region and came to Chichilticalli, where the wilderness begins, and saw nothing favorable, he could not help feeling somewhat downhearted, for, although the reports were very fine about what was ahead, there was nobody who had seen it except the Indians who went with the negro, and these had already been caught in some lies. Besides all this, he was much affected by seeing that the fame of Chichilticalli was summed up in one tumble-down house without any roof, although it appeared to

have been a strong place at some former time when it was inhabited, and it was very plain that it had been built by a civilized and warlike race of strangers who had come from a distance. The building was made of red earth.

From here they went on through the wilderness, and in fifteen days came to a river about eight leagues from Cibola, which they called Red River, because its waters were muddy and reddish. In this river they found mullets like those of Spain. The first Indians from that country were seen here — two of them, who ran away to give the news. During the night following the next day, about two leagues from the village, some Indians in a safe place yelled so that, although the men were ready for anything, some were so excited that they put their saddles on hind-side before; but these were the new fellows. When the veterans had mounted and ridden round the camp, the Indians fled. None of them could be caught because they knew the country.

The next day they entered the settled country in good order, and when they saw the first village, which was Cibola, such were the curses that some hurled at Friar Marcos, that I pray God may protect him from them.

It is a little, unattractive village, looking as if it had been crumpled all up together. There are mansions in New Spain which make a better appearance at a distance. It is a village of about two hundred warriors, is three and four stories high, with the houses small and having only a few rooms, and without a courtyard. One yard serves for each section. The people of the whole district had collected here, for there are seven

villages in the province, and some of the others are even larger and stronger than Cibola. These folks waited for the army, drawn up by divisions in front of the village. When they refused to have peace on the terms the interpreters extended to them, but appeared defiant, the Santiago was given, and they were at once put to flight. The Spaniards then attacked the village, which was taken with not a little difficulty, since they held the narrow and crooked entrance. During the attack they knocked the general down with a large stone, and would have killed him but for Don Garcia Lopez de Cardenas and Hernando de Alvarado, who threw themselves above him and drew him away, receiving the blows of the stones, which were not few. But the first fury of the Spaniards could not be resisted, and in less than an hour they entered the village and captured it. They discovered food there, which was the thing they were most in need of. After this the whole province was at peace.

The army which had stayed with Don Tristan de Arellano started to follow their general, all loaded with provisions, with lances on their shoulders, and all on foot so as to have the horses loaded. With no slight labor from day to day, they reached a province which Cabeza de Vaca had named Hearts (Corazones), because the people here offered him many hearts of animals. He founded a town here and named it San Hieronimo de los Corazones (Saint Jerome of the Hearts). After it had been started, it was seen that it could not be kept up here, and so it was afterward transferred to a valley which had been called Senora. The Spaniards call it Senora, and so it will be known by this name.

From here a force went down the river to the seacoast to find the harbor and to find out about the ships. Don Rodrigo Maldono, who was captain of those who went in search of the ships, did not find them, but he brought back with him an Indian so large and tall that the best men in the army reached only to his chest. It was said that other Indians were even taller on that coast. After the rains ceased the army went on to where the town of Senora was afterward located, because there were provisions in that region, so that they were able to wait there for orders from the general.

About the middle of the month of October, Captain Melchior Diaz and Juan Gallego came from Cibola, Juan Gallego on his way to New Spain and Melchior Diaz to stay in the new town of Hearts, in command of the men who remained there. He was to go along the coast in search of the ships.

After Melchior Diaz and Juan Gallego had arrived in the town of Senora, it was announced that the army was to depart for Cibola; that Melchior Diaz was to remain in charge of that town with eighty men; that Juan Gallego was going to New Spain with messages for the viceroy, and that Friar Marcos was going back with him, because he did not think it was safe for him to stay in Cibola, seeing that his report had turned out to be entirely false, because the kingdoms that he had told about had not been found, nor the populous cities, nor the wealth of gold, nor the precious stones which he had reported, nor the fine clothes, nor other things that had been proclaimed from the pulpits. When this had been announced, those who were to remain

were selected, and the rest loaded their provisions and set off in good order about the middle of September on the way to Cibola, following their general.

Don Tristan de Arellano stayed in this new town with the weakest men, and from this time on there was nothing but mutinies and strife, because after the army had gone Captain Melchior Diaz took twenty-five of the most efficient men, leaving in his place one Diego de Alcaraz, a man unfitted to have people under his command. He took guides and went toward the north and west in search of the seacoast. After going about one hundred and fifty leagues, they came to a province of exceedingly tall and strong men — like giants. They are naked and live in large straw cabins built underground like smoke houses, with only the straw roof above ground. They enter these at one end and come out at the other. More than a hundred persons, old and young, sleep in one cabin. When they carry anything, they can take a load of more than three or four hundred weight on their heads. Once when our men wished to fetch a log for the fire, and six men were unable to carry it, one of these Indians is reported to have come and raised it in his arms, put it on his head alone, and carried it very easily. They eat bread cooked in the ashes, as big as the large two-pound loaves of Castile. On account of the great cold, they carry a firebrand (tison) in the hand when they go from one place to another, with which they warm the other hand and the body as well, and in this way they keep shifting it every now and then. On this account the river which is in that country was called Rio del Tison (Firebrand River). It is a very great

river, and is more than two leagues wide at its mouth; here it is half a league across. Here the captain heard that there had been ships at a point of three days down toward the sea. When he reached the place where the ships had been, which was more than fifteen leagues up the river from the mouth of the harbor, they found written on a tree: "Alarcon reached this place; there are letters at the foot of this tree." He dug up the letters and learned from them how long Alarcon had waited for news of the army, and that he had gone back with the ships to New Spain, because he was unable to proceed farther, since this sea was a bay, which was formed by the Isle of the Marquis, which is called California, and it was explained that California was not an island, but a point of the main-land forming the other side of that gulf.

After he had seen this, the captain turned back to go up the river, without going down to the sea, to find a ford by which to cross to the other side, so as to follow the other bank. After they had gone five or six days, it seemed to them as if they could cross on rafts. For this purpose they called together a large number of the natives, who were waiting for a favorable opportunity to make an attack on our men, and when they saw that the strangers wanted to cross, they helped make the rafts with all zeal and diligence, so as to catch them in this way on the water and drown them, or else so divide them that they could not help one another. While the rafts were being made, a soldier who had been out around the camp saw a large number of armed men go across to a mountain, where they were waiting till the soldiers should cross the river.

He reported this, and an Indian was quietly shut up, in order to find out the truth, and when they tortured him he told all the arrangements that had been made. These were, that when our men were crossing and part of them had got over and part were on the river and part were waiting to cross, those who were on the rafts should drown those they were taking across, and the rest of their force should make an attack on both sides of the river. If they had had as much discretion and courage as they had strength and power, the attempt would have succeeded.

When he knew their plan, the captain had the Indian who had confessed the affair killed secretly, and that night he was thrown into the river with a weight, so that the Indians would not suspect that they were found out. The next day they noticed that our men suspected them, and so they made an attack, shooting showers of arrows, but when the horses began to catch up with them and the lances wounded them without mercy, and the musketeers likewise made good shots, they had to leave the plain and take to the mountain, until not a man of them was to be seen. The force then came back and crossed all right, the Indian allies and the Spaniards going across on the rafts, and the horses swimming alongside the rafts, where we will leave them to continue their journey.

To relate how the army that was on its way to Cibola got on. Everything went along in good shape, since the general had left everything peaceful, because he wished the people in that region to be contented and without fear and willing to do what they were ordered. In a province called Vacapan there was a large quantity

of prickly pears, of which the natives made a great deal of preserves. They gave this preserve away freely, and as the men of the army ate much of it, they all fell sick of a headache and fever, so that the natives might have done much harm to the force if they had wished. This lasted regularly twenty-four hours. After this they continued their march until they reached Chichilticalli. The men in the advance guard saw a flock of sheep one day after leaving this place. I myself saw and followed them. They had extremely large bodies and long wool; their horns were very thick and large, and when they run they throw back their heads and put their horns on the ridge of their back. They are used to the rough country, so that we could not catch them and had to leave them.

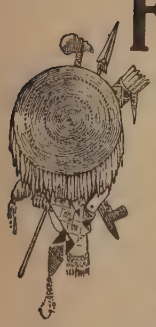
Three days after we entered the wilderness we found a horn on the bank of a river that flows in the bottom of a very steep, deep gully, which the general had noticed and left there for his army to see, for it was six feet long and as thick as the base of a man's thigh. It seemed to be more like the horn of a goat than of any other animal. It was something worth seeing. The army proceeded and was about a day's march from Cibola when a very cold tornado came up in the afternoon, followed by a great fall of snow, which was a bad combination for the carriers. The army went on till it reached some caves in a rocky ridge, late in the evening. The Indian allies, who were from new Spain, and for the most part from warm countries, were in great danger. They felt the coldness of that day so much that it was hard work the next day taking care of them, for they suffered much pain, and had to be

carried on the horses, the soldiers walking. After this labor the army reached Cibola, where their general was waiting for them, with their quarters all ready, and here they were reunited, except some captains and men who had gone off to discover other provinces.

EXPLORING KANSAS AND NEBRASKA

By CAPTAIN JUAN JARAMILLO.

(Translated by George P. Winship.)



FROM here we went to another river, which we called the Bermejo, or Red River, in two days' journey in the same direction, but less towards the northeast. Here we saw an Indian or two, who afterwards turned out to be from the first settlement of Cibola. From here we came in two days' journey to the said village, the first of Cibola. The houses have flat roofs and walls of stone and mud, and here was where they killed Steve, or Estevanillo, the negro who had come with Dorantes from Florida and returned with Friar Marcos de Niza. In this province of Cibola there are five little villages besides this, all with flat roofs and of stone and mud, as I described. The country is cold, as is shown by the houses and hothouses (*estufas*) they have. From this first village of Cibola, facing the northeast and a little less, on the left hand, there is a province called Tucayan, about five days off, which has seven flat-roofed villages, with as good as or better food supply than these, and even a larger population;

and they also have the skins of cows and of deer, and cloaks of cotton, as I said.

All the waterways we found up to this Cibola, — and I don't know but what a day or two beyond, — the rivers and streams, run into the south sea [Pacific], and those from beyond here into the north sea [Gulf of Mexico].

From this first village of Cibola, as I have said, we went to another in this same province, which was about a short day's journey off, on the way to Tihuex [Rio Grande]. It is nine days of such marches as we have made from this settlement of Cibola to the river of Tihuex. Half-way between, I do not know but it may be a day more or less, is a village of earth and dressed stone, in a very strong position, which is called Tutahaco. All these Indians, except the first in the village of Cibola, received us well. At the river of Tihuex there are fifteen villages within a distance of about twenty leagues, all with flat-roofed houses of earth, and not stone, after the fashion of mud walls. There are other villages besides these on other streams which flow into this, and three of these are, for Indians, well worth seeing, especially one that is called Chia, and another Uraba, and another Cicuique. Uraba and Cicuique have many houses, two stories high. All the rest, and these also, have corn and beans and melons, skins, and some long robes of feathers which they braid, joining the feathers with a sort of thread; and they also make them of a sort of plain weaving with which they make the cloaks with which they protect themselves. They all have hot rooms underground, which, although not very clean, are very warm. They

raise and have a very little cotton, of which they make the cloaks of which I have spoken above. This river comes from the northwest and flows about southeast, which shows that it certainly flows into the North Sea. Leaving this settlement and the said river, we went by two other villages whose names I do not know, and in four days came to Cicuique [Pecos pueblo], which I have already mentioned. The direction of this is toward the northeast.

From Cicuique we came to another river [Pecos?], which the Spaniards named Cicuique, in three days; if I remember rightly, it seems to me that we went rather toward the northeast to reach this river by the way we came, and, after crossing this, we turned more to the left hand, which would be more to the northeast, and began to enter the plains where the cows [buffalo] are, although we did not find them for some four or five days, after which we began to come across bulls, of which there are great numbers, and after going on and meeting the bulls for two or three days in the same direction, after this we began to find ourselves in the midst of very great numbers of cows, yearlings, and bulls all in together. We found Indians among these first cows, who were called, on this account, by those in the flat-roofed houses, Querechos. They live without houses, but have some sets of poles which they carry with them to make something like huts in the places where they stop, which serve them for houses. They tie these poles together at the top and stick the bottoms into the ground, covering them with some cow-skins which they carry around, and which, as I have said, serve them for houses. From

what was learned of these Indians, all their human needs are supplied by these cows, for they are fed and clothed and shod from these. They are a people who go around here and there, wherever seems to them best. We went on for eight or ten days in the same direction, along those streams which are among the cows. The Indian who guided us from here was the one that had given us the news about Quivira and Arache (or Arahei) and about its being a very rich country, with much gold, and other things, and he and the other one were from that country I mentioned, to which we were going, and we found these two Indians in the flat-roofed villages. It seems that, as the said Indian wanted to go to his own country, he proceeded to tell us what we found was not true, and I do not know whether it was on this account or because he was counselled to take us into other regions by confusing us about the road, although there are none in all this region except those of the cows. We understood, however, that he was leading us away from the route we ought to follow and wanted to get us on to those plains where he had got us, so that we would eat up the food, and both ourselves and our horses would become weak from the lack of this, because if we should go either back or ahead in this condition we could not make any resistance to whatever they might wish to do to us. At last as, from the time when, as I said, we entered the plains and from this settlement of Querechos, he led us off more to the east, until we came to be in extreme need from the lack of food. . . . I believe we had been travelling twenty days or more in this direction. . . . We all went forward one day

to a stream which was down in a ravine in the midst of good meadows, to agree on who should go ahead and how the rest should return. Here the Indian Isopete, as we had called the companion of the said Turk, was asked to tell us the truth, and to lead us to that country which we had come in search of. He said he would do it, and that it was not as the Turk had said, because those were certainly fine things which he had said and had given us to understand, about gold, and how it was secured, and the buildings, and the style of them, and their trade, and many other things told for the sake of prolixity, which had led us to go in search of them, with the advice of all who gave it and of the priests. He asked us to leave him afterwards in that country, as it was his native country, as a reward for guiding us, and also, that the Turk might not go along with him, because he would quarrel and try to restrain him in everything that he wanted to do for our advantage; and the general promised him this, and said he would be with one of the thirty, and he went in his way.

And when everything was ready for us to set out and for the others to remain, we pursued our way, turning all the time after this toward the north, for more than thirty days' march, although not long marches, without having to go without water on any one of them, and among cows all the time, some days in larger numbers than others, according to the water which we came across, so that on Saint Peter and Paul's day we reached a river which we found to be there below Quivira, and when we reached the said river, the Indian recognized it and said that was it,

and that it was below the settlements. We crossed it there and went up the other side on the north, the direction turning toward the northeast, and after marching three days we found some Indians who were going hunting, killing the cows to take the meat to their village, which was about three or four days still farther away from us. Here where we found the Indians and they saw us, they began to utter yells and appeared to fly, and some even had their wives there with them. The Indian Isopete began to call them in his language, and so they came to us without any signs of fear. . . . Some satisfaction was experienced here on seeing the good appearance of the earth, and it is certainly such here among the cows, and from here on. The general wrote a letter here to the governor of Harahey and Quivira, giving him to understand that he was a Christian from the army of Florida, led astray by what the Indians had said of their manner of government and their general character, which he had made us believe. So the Indians went to their houses, which were at the distance mentioned, and we also proceeded at our rate of marching until we reached the settlements, which we found along good river bottoms, although without much water, and good streams which flow into another, larger than the one I have mentioned. There were, if I recall correctly, six or seven settlements, at quite a distance from one another, among which we travelled for four or five days, since it was understood to be uninhabited between one stream and the other. We reached what they said was the end of Quivira, to which they took us, saying that what there was there was of great importance.

Here there was a river, with more water and more inhabitants than the others. Being asked if there was anything beyond, they said that there was nothing more of Quivira, but that there was Harahey, and that it was the same sort of a place, with settlements like these, and of about the same size. The general sent to summon the lord of those parts and the other Indians whom they said resided in Harahey, and he came with about two hundred men — all naked — with bows, and I don't know what sort of things on their heads. . . . He was a big Indian, with a large body and limbs, and well proportioned. After he had got the opinion of one and another about it, the general asked them what we ought to do, reminding us of how the army had been left and that the rest of us were there, so that it seemed to all of us that as it was already almost the opening of winter, for, if I remember rightly, it was after the middle of August, and because there was little to winter there for, and we were but very little prepared for it, and the uncertainty as to the success of the army that had been left, and because the winter might close the roads with snow and rivers which we could not cross, and also in order to see what had happened to the rest of the force left behind, it seemed to us all that his grace ought to go back in search of them, and when he had found out for certain how they were, to winter there and return to that country at the opening of spring, to conquer and cultivate it. Since, as I said, this was the last point which we reached, here the Turk saw that he had lied to us, and called upon all these people to attack us one night and kill us. We learned of it, and put him under guard and

strangled him that night, so that he never waked up. With the plan mentioned, we turned back it may have been two or three days, where we provided ourselves with picked fruit and dried corn for our return. The general raised a cross at this place, at the foot of which he made some letters with a chisel, which said that "Francisco Vazquez de Coronado," general of that army, had arrived here.

This country presents a very fine appearance, than which I have not seen a better in all our Spain nor Italy nor a part of France, nor, indeed, in the other countries in which I have travelled in His Majesty's service, for it is not a very rough country, but is made up of hillocks and plains, and very fine appearing rivers and streams, which certainly satisfied me and made me sure that it will be very fruitful in all sorts of products. Indeed, there is profit in the cattle ready to the hand, from the quantity of them, which is as great as one could imagine. We found a variety of Castilian prunes which are not all red, but some of them black and green: the tree and fruit is certainly like that of Castile, with a very excellent flavor. Among the cows we found flax, which springs up from the earth in clumps apart from each other, which are noticeable, as the cattle do not eat it, with their tops and blue flowers, and very perfect although small, and sumach like ours in Spain. There are grapes along some streams, of a fair flavor, not to be improved upon. The houses which these Indians have were of straw, and most of them round, and the straw reached down to the ground like a wall, so that they did not have the sym-

metry or the style of these here; they have something like a chapel or sentry box outside and around these, with an entry, where the Indians appear seated or reclining. . . .

AN ENGLISH EXPLORER IN MEXICO

By MILES PHILIPS.

THE gentlemen that thus tooke vs for their seruants or slaues, did new apparell vs through out, with whom we abode, doing such seruice as they appointed vs vnto, which was for the most part to attend vpon them at the table, and to be as their chamberlaines, and to waite vpon them when they went abroad, which they greatly accounted of: for in that countrey no Spaniard will serue one another, but they are all of them attended and serued by Indians weekely, and by Negroes which be their slaues during their life. In this sort we remained and serued in the said citie of Mexico, and thereabouts for the space of a yeere and somewhat longer. Afterwards many of vs were by our masters appointed to go to sundry of their Mines where they had to doe, and to be as ouerseers of the Negroes and Indians that laboured there. In which mines many of vs did profite and gaine greatly: for first we were allowed three hundred Pezos a man for a yeere, which is threescore pound sterling, and besides that the Indians and Negroes

which wrought vnder our charge, vpon our well using and intreating of them, would at times as vpon Saturdayes when they had left worke, labour for vs, and blow as much siluer as should be worth vnto vs 3 markes or thereabouts, euery marke being worth 6 Pezos, and a halfe of their money, which 19 Pezos and a halfe, is worth 4 li. 10 s. of our money. Sundry weekes we did gaine so much by this meanes besides our wages, that many of vs became very rich, and were worth three thousand or foure thousand Pezos, for we liued and gained thus in those Mines some three or foure yeeres.

As concerning those Gentlemen which were deliuered as hostages, and that were kept in prison, in the Viceroy his house, after that we were gone from out the garden to serue sundry gentlemen as aforesaid, they remained prisoners in the said house for the space of 4 moneths after their comming thither, at the end whereof the fleete being readie to depart from S. Iohn de Vllua to goe for Spaine, the said Gentlemen were sent away into Spaine with the fleete, where as I haue heard it creditably reported, many of them died with the cruell handling of the Spaniards, in the Inquisition house, as these which haue bene deliuered home after they had suffered the persecution of that house can more perfectly declare. Robert Barret also master of the Iesus, was sent away with the fleete into Spaine the next yeere following, where afterwards he suffered persecution in the Inquisition, and at the last was condemned to be burnt, and with him one more of our men whose name was Iohn Gilbert.

Now after that six yeeres were fully expired since our first coming into the Indies, in which time we had

bene imprisoned and serued in the said countreys as is before truely declared. In the yeere of our Lord one thousand fiue hundred seuenty foure, the Inquisition began to be established in the Indies: . . . so that now againe began our sorrowes a fresh, for we were sent for, and sought out in all places of the countrey, and proclamation made vpon paine of loosing of goods and excommunication, that no man should hide or keepe secret any Englishmen or any part of their goods. By means whereof we were all soone apprehended in all places, and all our goods seized and taken for the Inquisitors vse, and so from all parts of the countrey we were conueied and sent as prisoners to the citie of Mexico, and there committed to prison in sundry dark dungeons, where we could not see but by candle light, and were neuer put two together in one place, so that we saw not one another, neither could one of vs tell what was become of another, . . .

I Miles Philips and William Lowe were appointed to the blacke Friers, where I was appointed to be an ouerseer of Indian workmen, who wrought there in building of a new church: amongst which Indians I learned their language or Mexican tongue very perfectly, and had great familiaritie with many of them, whom I found to be a courteous and louing kind of people, ingenious, and of great vnderstanding, and they hate and abhorre the Spaniardes with all their hearts, they haue vsed such horrible cruelties against them, and doe still keepe them in such subiection and seruitude, that they and the Negros doe daily lie in waite to practise their deliuerance out of that thraldome and bondage, that the Spaniards doe keepe them in. William Lowe he was

appointed to serue the Cooke in the kitchin, Richard Williams and Dauid Alexander were appointed to the Grey Friers, Iohn Story and Robert Cooke to the white Friers: Paul Horsewel the Secretary tooke to be his seruant: Thomas Hull was sent to a Monastery of priests, where afterward he died. Thus we serued out the yeeres that we were condemned for, with the vse of our fooles coates, and we must needs confesse that the Friers did vse us very courteously: for euery one of vs had his chamber with bedding and diet, and all things cleane and neat: yea many of the Spaniards and Friers themselues do vtterly abhorre and mislike of that cruell Inquisition, and would as they durst bewaile our miseries, and comfort vs the best they could, although they stood in such feare of that diuelish Inquisition, that they durst not let the left hande know what the right doth. Now after that the time was expired for which we were condemned to serue in those religious houses, we were then brought againe before the chiefe Inquisitor, and had all our fooles coates pulled off and hanged vp in the head church, called Ecclesia Maior, and euery mans name and iudgement written thereupon with this addition, An heretike Lutheran reconciled. And there are also all their coates hanged vp, which were condemned to the gallies, with their names and iudgements, and vnderneath his coat, Heretike Lutheran reconciled. And also the coats and names of the three that were burned, whereupon were written, An obstinate heretike Lutheran burnt. Then were we suffered to goe vp and downe the countrey, and to place our selues as we could, and yet not so free, but that we very well knew that there was good espiall alwayes attending vs and all our

actions, so that we durst not once speake or looke awry. Dauid Alexander and Robert Cooke returned to serue the Inquisitor, who shortly after married them both to two of his Negro women: Richard Williams married a rich widow of Biskay with foure thousand Pezos: Paul Horsewell is married to a Mestisa, as they name those whose fathers were Spaniards, and their mothers Indians, and this woman which Paul Horsewell hath married, is sayd to be the daughter of one that came in with Hernando Cortes the Conquerour, who had with her in marriage foure thousand Pezos, and a faire house: Iohn Storie is married to a Negro woman: William Lowe had leaue and license to go into Spaine where he is now married: for mine owne part I could neuer thoroughly settle myselfe to marry in that countrey, although many faire offers were made vnto me of such as were of great abilitie and wealth, but I could haue no liking to liue in that place, where I must euery where see and know such horrible idolatrie committed, and durst not once for my life speake against it: and therefore I had alwayes a longing and desire to this my natiue countrey: and, to returne and serue againe in the Mines where I might haue gathered great riches and wealth, I very well saw that at one time or another I should fall againe into the danger of that diuelish Inquisition, and so be stript of all, with losse of life also, and therefore I made my choice rather to learne to weaue Grogranes and Taffaties, and so compounding with a Silke-weauer, I bound my selfe for three yeeres to serue him, and gaue him an hundred and fiftie Pezos to teach me the science, otherwise he would not haue taught mee vnder seuen yeeres prentiship, and by this

meanes I liued the more quiet, and free from suspition. Howbeit I should many times be charged by familiars of that diuelish house, that I had a meaning to runne away into England, and to be an heretike Lutheran again: To whom I would answere that they had no neede to suspect any such thing in mee, for that they knew all very well that it was impossible for me to escape by any maner of meanes: yet notwithstanding I was called before the Inquisitor, and demaunded why I did not marrie: I answered that I had bound myselfe at an occupation. Well, said the Inquisitor I knowe thou meanest to runne away, and therefore I charge thee here vpon paine of burning as a heretike relapsed, that thou depart not out of this citie, nor come neere to the port of S. Iohn de Vllua, nor to any port: to the which I answered that I would willingly obey. Yea, said he, see thou doe so, and thy fellowes also, they shall haue the like charge. . . .

DRAKE'S FAMOUS VOYAGE ABOUT THE WHOLE GLOBE

By FRANCIS PRETTY.

THE 15. day of Nouember, in the yeere of our Lord 1577. M. Francis Drake, with a fleete of fiue ships and barkes, and to the number of 164 men, gentlemen and sailers, departed from Plimmouth, giuing out his pretended voyage for Alexandria: but the wind falling contrary, hee was forced the next morning to put into Falmouth hauen in Cornewall, where such and so terrible a tempest tooke vs, as few men haue seene the like, and was indeed so vehement, that all our ships were like to haue gone to wracke: but it pleased God to preserue vs from that extremitie, and to afflict vs onely for that present with these two particulars: The mast of our Admirall which was the Pellican, was cut ouer boord for the safegard of the ship, and the Marigold was driuen ashore, and somewhat bruised: for the repairing of which damages wee returned againe to Plimmouth, and hauing recouered those harmes, and brought the ships againe to good state, we set forth the second time from

Plimmouth, and set saile the 13. day of December following.

The 25. day of the same moneth we fell with the Cape Cantin, vpon the coast of Barbarie, and coasting along, the 27. day we found an Island called Mogador, lying one mile distant from the maine, betweene which Island and the maine, we found a very good and safe harbour for our ships to ride in, as also very good entrance, and voyde of any danger.

On this Island our Generall erected a pinnesse, whereof he brought out of England with him foure already framed. . . .

Our pinnesse being finished, wee departed from this place the 30. and last day of December, and coasting along the shore, wee did descrie, not contrary to our expectation, certaine Canters which were Spanish fishermen, to whom we gaue chase and tooke three of them, and proceeding further we met with 3. Carauels and tooke them also.

The 17. day of Ianuary we arriued at Cape Blanco, where we found a ship riding at anchor, within the Cape, and but two simple Mariners in her, which ship we tooke and caried her further into the harbour, where we remained 4 dayes, and in that space our General mustered, and trayned his men on land in warlike manner, to make them fit for all occasions.

In this space we tooke of the Fishermen such necessaries as wee wanted, and they could yeeld vs, . . .

Being departed from these Islands, we drew towards the line, where wee were becalmed the space of 3. weekes, but yet subiect to diuers great stormes, terrible lightnings and much thunder: but with this miserie

we had the commoditie of great store of fish, as Dolphins, Bonitos, and flying fishes, whereof some fell into our shippes, wherehence they could not rise againe for want of moisture, for when their wings are drie, they cannot flie.

From the first day of our departure from the Islands of Cape Verde, wee sayled 54. dayes without sight of land, and the first land that we fell with was the coast of Brasil, which we saw the fift of April in y° height of 33. degrees towardes the pole Antarctike, . . .

From hence we went our course to 36. degrees, and entred the great riuer of Plate, and ranne into 54. and 53. fadomes [fathoms] and a halfe of fresh water, where wee filled our water by the ships side: but our Generall finding here no good harborough, as he thought he should, bare out againe to sea the 27. of April, . . .

. . . the twentieth of Iune, wee harboured our selues againe in a very good harborough, called by Magellan Port S. Julian, where we found a gibbet standing vpon the maine, which we supposed to be the place where Magellan did execution vpon some of his disobedient and rebellious company. . . .

In this Port our Generall began to enquire diligently of the actions of M. Thomas Doughtie, and found them not to be such as he looked for, but tending rather to contention or mutinie, or some other disorder, whereby (without redresse) the successe of the voyage might greatly haue bene hazarded: . . . our Generall saw, although his priuate affection to M. Doughtie (as hee then in the presence of vs all sacredly protested) was great, yet the care he had of the state of the voyage, of the expectation of her Maiestie, and of the honour

of his countrey did more touch him (as indeede it ought) then [than] the priuate respect of one man: so that the cause being thoroughly heard, and all things done in good order as neere as might be to the course of our lawes in England, it was concluded that M. Doughtie should receive punishment according to the qualitie of the offence: and he seeing no remedie but patience for himselfe, desired before his death to receive the Communion, which he did at the hands of M. Fletcher our Minister, and our Generall himselfe accompanied him in that holy action: which being done, and the place of execution made ready, hee hauing embraced our Generall and taken his leaue of all the companie, with prayer for the Queenes maiestie and our realme, in quiet sort laid his head to the blocke, where he ended his life. . . .

The 17. day of August we departed the port of S. Iulian, and the 20. day we fell with the streight or freat [strait] of Magellan going into the South sea, at the Cape or headland whereof we found the bodie of a dead man, whose flesh was cleane consumed.

The 21. day we entred The streight, which we found to haue many turnings, and as it were shuttings vp, as if there were no passage at all, by meanes whereof we had the wind often against vs, so that some of the fleete recouering a Cape or point of land, others should be forced to turne backe againe, and to come to an anchor where they could.

In this streight there be many faire harbors, with store of fresh water, but yet they lacke their best commoditie: for the water is there of such depth, that no man shal find ground to anchor in, except it bee in

some narow riuer or corner, or betweene some rocks, so that if any extreme blasts or contrary winds do come (whereunto the place is much subiect) it carieth with it no small danger. . . .

The 6. day of September we entred the South sea at the Cape or head shore. . . .

Our Generall seeing this, stayed here no longer, but wayed anchor, and set sayle towards the coast of Chili, and drawing towards it, we mette neere to the shore an Indian in a Canoa, who thinking vs to haue bene Spaniards, came to vs and tolde vs, that at a place called S. Iago, there was a great Spanish ship laden from the kingdome of Peru: for which good newes our Generall gaue him diuers trifles, whereof he was glad, and went along with vs and brought vs to the place, which is called the port of Valparizo. . . .

They of the towne being not aboue 9. households, presently fled away and abandoned the towne. Our Generall manned his boate, and the Spanish ships boate and went to the Towne, and being come to it, we rifled it, and came to a small chappell which wee entred, and found therein a siluer chalice, two cruets, and one altar cloth, the spoyle whereof our Generall gave to M. Fletcher his minister. . . .

When we were at sea, our Generall rifled the ship, and found in her good store of the wine of Chili, and 25000 pezoes of very pure and fine gold of Baldiuia, amounting in value to 37000 ducats of Spanish money, and aboue. So going on our course, wee arriued next at a place called Coquimbo, where our Generall sent 14. of his men on land to fetch water: but they were espied by the Spaniards, who came with 300. horsemen

and 200. footemen, and slewe one of our men with a piece [firearm], the rest came aboord in safetie, and the Spaniards departed: wee went on shore againe, and buried our man, and the Spaniards came downe againe with a flag of truce, but we sat sayle and would not trust them.

From hence we went to a certaine port called Tarapaça, where being landed, we found by the Sea side a Spaniard lying asleepe, who had lying by him 13. barres of siluer, which weighed 4000. ducats Spanish; we tooke the siluer, and left the man.

Not farre from hence going on land for fresh water, we met with a Spaniard and an Indian boy driuing 8. Llamas or sheepe of Peru which are as big as asses; euery of which sheep had on his backe 2. bags of leather, each bagge conteining 50. li. weight of fine siluer: so that bringing both the sheepe and their burthen to the ships, we found in all the bags 800. weight of siluer.

Here hence we sailed to a place called Arica, and being entred the port, we found there three small barkes which we rifled, and found in one of them 57 wedges of siluer, each of them weighing about 20 pound weight, and euery of these wedges were of the fashion and bignesse of a brickbat. In all these 3. barkes we found not one person: . . .

To Lima we came the 13. day of February, and being entred the hauen, we found there about twelue sayle of ships lying fast moored at an anker, hauing all their sayles caried on shore; for the masters and marchants were here most secure, hauing neuer bene assaulted by enemies, and at this time feared the approach of none such as we were. Our generall rifled these ships, and found in one of them a chest full of royals of plate, and good store of silkes and linnen cloth, and tooke the chest into his owne ship, and good store of the silkes and linnen. In which ship hee had newes of another ship called the Cacafuego which was gone towards Paita, and that the same shippe was laden with treasure: whereupon we staied no longer here, but cutting all the cables of the shippes in the hauen, we let them driue whither they would, either to sea or to the shore, and with all speede we followed the Cacafuego toward Paita, . . . It fortuned that Iohn Drake going vp into the top, descried her about three of the clocke, and about sixe of the clocke we came to her and boorded her, and shotte at her three peeces of ordinance, and stroke downe her Misen, and being entered, we found in her great riches, as iewels and precious stones, thirteene chests full of royals of plate, foure score pound weight of golde, and sixe and twentie tunne of siluer. The place where we tooke this prize, was called Cape de San Francisco, about 150. leagues from Panama.

The Pilots name of this Shippe was Francisco, and amongst other plate that our Generall found in this ship, he found two very faire guilt bowles of siluer, which were the Pilots: to whom our Generall sayd:

Sir Francis Drake Receiving an Eastern Prince on Board the Ship Pellican.

Senior Pilot, you haue here two siluer cups, but I must needs haue one of them: which the Pilot because hee could not otherwise chuse, yeelded vnto, and gaue the other to the steward of our Generals ship.

When this Pilot departed from vs, his boy sayd thus vnto our Generall: Captaine, our ship shall be called no more the Cacafuego [Spitfire], but the Cacaplata [Spit-treasure], and your shippe shall bee called the Cacafuego: which pretie speach of the Pilots boy ministred matter of laughter to vs, both then and long after.

When our Generall had done what hee would with this Cacafuego, hee cast her off, and wee went on our course still towards the West, and not long after met with a ship laden with linnen cloth and fine China-dishes of white earth, and great store of China-silks, of all which things wee tooke as we listed.

The owner himselfe of this ship was in her, who was a Spanish Gentleman, from whom our Generall tooke a Fawlcon of golde, with a great emeraud in the breast thereof, and the Pilot of the ship he tooke also with him, and so cast the ship off. . . .

And while wee were here, we espied a shippe, and set saile after her, and tooke her, and found in her two Pilots and a Spanish Gouernour, going for the Islands of the Philippinas: wee searched the shippe, and tooke some of her marchandizes, and so let her goe. Our Generall at this place and time, thinking himselfe both in respect of his priuate iniuries receiued from the Spaniards, as also of their contempts and indignities offered to our countrey and Prince in generall, sufficiently satisfied, and reuenged: and supposing that her

Maiestie at his returne would rest contented with his seruice, proposed to continue no longer vpon the Spanish coasts, but began to consider and to consult of the best way for his Countrey.

He thought it not good to returne by the Streights, for two speciall causes: the one, lest the Spaniards should there waite, and attend for him in great number and strength, whose hands, hee being left but one ship, could not possibly escape. The other cause was the dangerous situation of the mouth of the streights in the South sea, where continuall stormes reigning and blustering, as he found by experience, besides the shoalds and sands vpon the coast, he thought it not a good course to aduenture that way: he resolued therefore to auoyd these hazards, to goe forward to the Islandes of the Malucos, and therehence to saile the course of the Portugals by the Cape of Buena Esperança.

Upon this resolution, hee beganne to thinke of his best way to the Malucos, and finding himselfe where he now was becalmed, he saw that of necessitie hee must be forced to take a Spanish course, namely to sayle somewhat Northerly to get a winde. Wee therefore set saile, and sayled 600. leagues at the least for a good winde, and thus much we sailed from the 16. of April, till the 3. of Iune.

The 5. day of Iune, being in 43. degrees towards the pole Arctike, we found the ayre so cold, that our men being grieuously pinched with the same, complained of the extremitie thereof, and the further we went, the more the colde increased vpon vs. Whereupon we thought it best for that time to seeke the land, and did so, finding it not mountainous, but low plaine land,

till wee came within 38. degrees towards the line. In which height it pleased God to send vs into a faire and good Baye, with a good winde to enter the same [coast of California]. . . .

Our Generall called this Countrey Noua Albion, and that for two causes: the one in respect of the white bankes and cliffes, which lie towards the sea: and the other, because it might haue some affinitie with our Countrey in name, which sometime was so called.

There is no part of earth heere to be taken vp, wherein there is not some probable shew of gold or siluer.

At our departure hence our Generall set vp a monument of our being there, as also of her Maiesties right and title to the same, namely a plate, nailed vpon a faire great poste, whereupon was ingrauen her Maiesties name, the day and yeere of our arriuall there, with the free giuing vp of the prouince and people into her Maiesties hand, together with her hignesse picture and armes, in a peece of sixe pence in current English money under the plate, whereunder was also written the name of our Generall. . . .

After we had set saile from hence, wee continued without sight of land till the 13. day of October following, which day in the morning wee fell with certaine Islands 8. degrees to the Northward of the line, . . .

The 14. of November we fell with the Islands of Maluco, . . . For of all other dayes vpon the 9. of Ianuarie, in the yeere 1579. we ranne suddenly vpon a rocke, where we stucke fast from 8. of the clocke at night, till 4. of the clocke in the afternoone the next day, being indeede out of all hope to escape the danger:

but our Generall as hee had always hitherto shewed himselfe couragious, and of a good confidence in the mercie and protection of God: so he now continued in the same, and lest he should seem to perish wilfully, both he, and we did our best indeuour to saue our selues, which it pleased God so to blesse, that in the ende we cleared our selues most happily of the danger.

We lighted our ship vpon the rockes of 3. tunne of cloves, 8 peeces of ordinance, and certaine meale and beanes: and then the winde (as it were in a moment by the speciall grace of God) changing from the starreboord to the larboord of the ship, we hoised our sailes, and the happy gale droue our ship off the rocke into the sea againe, to the no litle comfort of all our hearts for which we gaue God such prayse and thanks, as so great a benefite required. . . .

From Iaua [Java] Maior we sailed for the cape of Good Hope, which was the first land we fell withall: neither did we touch with it, or any other land, vntil we came to Sierra Leone, vpon the coast of Guinea: notwithstanding we ranne hard aboord the Cape, finding the report of the Portugals to be most false, who affirme, that it is the most dangerous Cape of the world, neuer without intolerable stormes and present danger to trauailers, which come neere the same.

This Cape is a most stately thing, and the fairest Cape we saw in the whole circumference of the earth, and we passed by it the 18. of Iune.

From thence we continued our course to Sierra Leona, on the coast of Guinea, where we arriued the 22. of Iuly, and found necessarie prouisions, great store of Elephants, Oisters vpon trees of one kinde, spawning

and increasing infinitely, the Oister suffering no budde to grow. We departed thence the 24. day.

We arriued in England the third of Nouember 1580. being the third yeere of our departure.

EXPEDITION TO EL DORADO

(From the Discoverie of the Large, Rich, and Beautiful Empire of Guiana.)

By SIR WALTER RALEIGH.

ON Thursday the 6. of Februarie in the yeare 1595. we departed England, . . .

Sir Walter Raleigh.
(From an old print.)

Meeting with the ships at *puerto de los Hispanioles*, we founde at the landing place a company of Spaniardes who kept a gard at the descente. . . . Taking a time of much aduantage, I set vpon the *Corp du guard* in the evening, and hauing put them to the sword, sent Captain Calfield onwards with 60. soldiers, & my selfe followed with 40. more & so toke ther new city which they called S. Ioseph, by breake of day: . . .

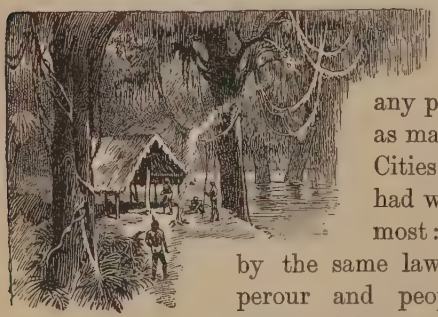
We then hastened away towards our purposed discouerie, & first I called all the Captaines of the Iland together that were enemies to the Spaniards, for ther were som which Berreo had broght out of other countries, & planted there to eat out & wast those that were natural of the place, & by my Indian interpreter, which

I caried out of England, I made them vnderstand that I was the seruant of a Queene, who was the great Casique of the North, and a virgin, and had more Casiqui vnder her then were trees in that Iland: that shee was an enemy to the Castilani in respect of their tyranny and oppression and that she deliuered all such nations about her, as were by them oppressed, & hauing freed all the coast of the northern world from their seruitude had sent me to free them also & with all to defend the countrey of Guiana from their inuasion and conquest. I shewed them her maiesties picture which they so admired and honoured, as it had beene easi to haue brought them Idolatrous thereof.

I sent Captain Whiddon the yeare before to get what knowledge he could of Guiana, and the end of my iorney at this time was to discouer & enter the same, but my intelligence was farre from trueth, for the country is situate aboue 600. English miles further from the sea, then I was made beleeue it had been, which afterward vnderstanding to be true by Berreo, I kept it from the knowledge of my companie, who else would neuer haue beene brought to attempt the same, of which 600. miles I passed 400. leauing my shippes so farre from me at ancor in the sea, which was more of desire to performe that discouery, then of reasō, especially hauing such poore & weake uessels to transport our selues in; for in the bottom of an old Gallego which I caused to be fashioned like a Galley, & in one barge, two wherries, and a ship bote of the Lions whelpe, we caried 100. persons and their victuals for a moneth in the same, being al driuen to lie in the raine & weather, in the opan aire, in the burning sun, & vpon the hard

bords, and to dresse our meate, and to cary al maner of furniture in them, wherewith they were so pestred & vnsauery, that what with victualls being most fish, with the wet clothes of so many men thrust together and the heate of the sunne, I will vndertake there was neuer any prison in England, that coulde be founde more vnsauory and lothsome, especially to my selfe, who had for many yeares before beene dieted and carred for in a sort farre more differing. . . .

The Empyre of Guiana is directly east from Peru towards the sea, and lieth vnder the Equinoctiall line, and it hath more abundance of Golde than any parte of Peru, and as many or more greate Cities than euer Peru had when it flourished most: it is gouerned by the same lawes, and the Emperour and people obserue the same religion, and the same forme and pollicies in gouerment as was vsed in Peru, not differing in any part: and as I haue beene assured by such of the Spanyardes as haue seene Manoa the imperiall Citie of Guiana, which the Spanyards cal El Dorado, that for the greatnes, for the riches, and for the excellent seate, it farre exceedeth any of the world, at least so much of the world as is knowen to the Spanish nation: it is founded vpon a lake of salt water of 200. leagues long vnto *mare capsiũ*.



On the Banks of the Amazon River.

. . . I had knowledge of all the riuers between Oreonoque and Amazones, and was uery desirous to vnderstand the trueth of those warlike women, bicause of some it is beleeued, of others not: And though I digresse from my purpose, yet I will set downe what hath beene deliuered me for the trueth of those women, and I spake with a Casique or Lorde of people that told me he had been in the riuer, and beyond it also. The nations of these women are on the south side of the riuer in the prouinces of Tapago, and their chiefest strengths and retraicts are in the Ilandes scituate on the south side of the entrance, some 60. leagues within the mouth of the said riuer. . . . It was farther told me, that if in the wars they tooke any prisoners that they vsed to accompany with those also at what time soeuer, but in the end for certaine they put them to death: for they are said to be very cruell and bloodthirsty, especially to such as offer to inuade their territories. These Amazones haue likewise great store of these plates of Golde, which they recouer by exchange chiefly for a kinde of greene stones, which the Spaniards call *Piedras Hiiadas*, and we use for spleene stones, and for the disease of the stone we also esteeme them: of these I sawe diuers in Guiana, and commonly euery king or Casique hath one, which their wiues for the most part weare, and they esteeme them as great iewels.

. . . Arwacan promised to bring me into the great riuer of Oreonoque, but indeede of that which we entred he was vtterly ignorant. . . . and if we went by the Sun or compasse hoping thereby to go directly one way or other, yet that waie we were also carried in a circle

amongst multitudes of Ilands, and euery Iland so bordered with high trees, as no man coulde see any further than the bredth of the riuer, or length of the breach. . . .

The farther we went on (our victual decreasing and the aire breeding great faintnes) we grew weaker and weaker when we had most need of strength and abilitie, for howrelie [hourly] the riuer ran more violently than other against vs, and the barge wherries, and ships bote of Captaine Gifford, and Captaine Calfield had spent all their prouisions, so as wee were brought into despaire and discomfort, had wee not perswaded all the companie that it was but onelie one daies worke more to attaine the lande where we should bee releeued of all wee wanted, and if we returned that we were sure to starue by the way, and that the worlde woulde also laugh vs to scorne. . . .

Our old Pilot of the Ciawani (whom, as I said before, wee tooke to redeeme Ferdinando), tould vs, that if we would enter a branch of a riuer on the right hand with our barge and wherries, and leaue the Galley at ancor the while in the great riuer, hee would bring vs to a towne of the Arwacas where we should find store of bread, hens, fish, and of the countrey wine, and perswaded vs that departing from the Galley at noon, we might returne ere night: . . . But when it grew towardes night, and wee demaunded where the place was, hee tolde vs but fowre reaches more, when we had rowed fower and fower, we sawe no signe, and our poore water men euen hart broken, and tired, were readie to giue vp the ghost; for wee had nowe come from the Galley neere forty miles.

At the last wee determined to hang the Pilot, and if we had well knowen the way backe againe by night, he had surely gone, but our owne necessities pleaded sufficientlie for his safetie: for it was as darke as pitch, and the riuer began so to narrowe it selfe and the trees to hang ouer from side to side, as we were driuen with arming swordes to cut a passage thorowe the branches that couered the water. We were very desirous to finde this towne hoping of a feast, because we had but a shorte breakefast aboorde the Galley in the morning, and it was now eight a clocke at night, and our stomacks began to gnawe apace: but whether it was best to returne or to go on, we began to doubt, suspecting treason in the Pilote more and more: but the poore olde Indian euer assured vs that it was but a little farther, and but this one turning, and that turning, and at last about one a clocke after midnight we saw a light, and rowing towardes it, we heard the dogs of the village. . . .

. . . seeking after the Spaniardes, we found the Armacas hidden in the woods which were pilots for the Spaniards, and rowed their Canoas: of which I kept the chiefest for a Pilot; and carried him with me to Guiana, by whom I vnderstood, where and in what countries the Spaniards had labored for gold, though I made not the same knowen to all: for when the springs began to breake, and the riuers to raise themselues so suddenly as by no meanes we coulde abide the digging of any mine, especially for that the richest are defended with rocks of hard stone, which we call the White spar, and that it required both time, men, and instruments fit for such a worke, I thought it best not to houer

thereabouts, . . . to staie to dig out gold with our nayles, had beene *Opus laboris*, but not *Ingenij:* such a quantitie as woulde haue serued our turnes we could not haue had, but a discouery of the mines to our infinite disaduantage we had made, and that coulde haue been the best profit of farther search or stay: for those mines are not easily broken, nor opened in hast, and I could haue returned a good quantity of gold ready cast, if I had not shot at another mark than present profit.

. . . so the 15. day wee discoured a far off the mountaines of Guiana to our great ioy, and towards the euening had a slent of a northerly winde that blew uery strong, which brought vs in sight of the great riuer of Orenoque. . . .

That Casique that was a stranger had his wife staying at the port where we ankored, and in all my life I haue seldom seene a better fauored woman; she was of good stature, with black eies, fat of body, of an excellent countenance, her haire almost as long as her selfe, tied vp againe in prittie knots, and it seemed she stood not in that awe of her husband, as the rest, for she spake and discourst, and dranke among the gentlemen and captaines, and was uery pleasant, knowing her own comeliness, and taking great pride therein. I haue seene a lady in England so like her, as but for the difference of colour I would haue sworne might haue beene the same. . . .

The next morning towardes nine of the clocke, we weied ancor, & the brize encreasing, we sailed alwaies west vp the riuer, and after a while opening the lande on the right side, the country appeered to be champaine [plains], and the banks shewed very perfect red: . . .

The next day we arriued at the port of Morequito, and ankored there; sending away one of our Pilots to seeke the king of Aromaia: . . .

After this olde king had rested a while in a little tent, that I caused to be set vp, I began by my interpreter to discourse with him of the death of Morequito his predecessor, and afterwarde of the Spaniards, and ere I went anie farther I made him knowe the cause of my comming thither, whose seruant I was, and that the Queenes pleasure was, I should vndertake the voyage for their defence, and deliuer them from the tyrannie of the Spaniardes, dilating at large (as I had done before to those of Trinedado) her Maiesties greatnesse, her iustice, her charitie to all oppressed Nations, with as manie of the rest of her beauties and vertues, as eyther I could expresse or they conceiue, all which being with great admiration attentiuelie hearde, and maruellouslie admired, I began to sounde the olde man as touching Guina, . . . He told me farther that fower daies iourney from his towne was Macureguarai, and that those were the next, & nearest of his subiects of Inga, and of the Epuremei, and the first towne of apparrelled and rich people, and that all those plates of Golde which were scattered among the borderers and caried to other nations farre and neere, came from the saide Marcureguarai and were there made, but that those of the lande within were farre finer, and were fashioned after the Image of men, bestes, birdes, and fishes. I asked him whether hee thought that those companies that I had there with me, were sufficient to take that towne or no; hee told mee that he thought they were. . . . For mine owne part (as we were not able to march it for the

riuers neither had any such strength as was requisite, and durst not abide the comming of the winter, or to tarry any longer from our shippes) I thought it were euill counsell to haue attempted it at that time, although the desire of golde will answere many obiections ; But it woulde haue beene in mine opinion an vtter ouerthrow to the enterprize, if the same should be hereafter by her Maiesty attempted : for then (whereas now they haue heard we were enemies to the Spaniards & were sent by her Maiesty to reliue them) they would as good cheape haue ioyned with the Spaniardes at our returne, as to haue yeeled vnto vs, when they had proued that we came both for one errant, and that both fought but to sacke and spoyle them, but as yet our desire of gold, or our purpose of inuasion is not knowen vnto those of the empire : and it is likely that if her Maiesty vndertake the enterprize, they will rather submit themselues to her obedience then to Spaniards, of whose cruelty both themselues and the borderers haue already tasted ; and therefore till I had knowen her Maiesties pleasure, I would rather haue lost the sacke of one or two townes (although they might haue beene uery profitable) then to haue defaced or indangered the future hope of so many millions, and the great good, & rich trade which England may bee possessed off thereby. . . . I after asked the manner how the Epuremei wrought those plates of golde, and how they could melt it out of the stone; he tolde me that the most of the gold which they made in plates and images was not seuered from the stone, but that on the lake of Manoa, & in a multitude of other riuers they gathered it in graines of perfect gold and in peeces as big as small stones, and that

they put it to a part of copper, otherwise they could not worke it, & that they vsed a great earthen pot with holes round about it, and when they had mingled the gold & copper together, they fashioned canes to the hole, and so with the breath of men they increased the fire till the mettel ran, and then they cast it into moulds of stone & clay, and so make the plants and Images. I haue sent your Honours of two sorts such as coulde by chaunce recouer, more to shew the maner of them, then for the value: for I did not in any sort make my desire of gold knowen, because I had neither time, nor power to haue a greater quantity. I gaue among them manie more pesoes of Golde then I receiued of the new money of 20. shillings with her maiesties picture to weare, with promise that they would become her seruants thenceforth. . . .

To speake of what past homeward were tedious, . . . about nine of the clocke, we descried the Iland of Trinedado, and stearing for the nearest part of it wee kept the shore til we came to Curiapan, where we found our ships at ancor, then which, there was neuer to vs a more ioyfull sight.

FIRST VOYAGE TO ROANOAKE

By CAPT. ARTHUR BARLOWE.

THE 27 day of Aprill, in the yeere of our redemption 1584, we departed the West of England, with two barkes well furnished with men and victuals, hauing receiued our last and perfect directions by your letters, confirming the former instructions, and commandements deliuered by your selfe at our leauing the riuer of Thames. And I thinke it a matter both vnnecessary, for the manifest discouerie of the Countrey, as also for tediousnesse sake, to remember vnto you the diurnall of our course, sayling thither and returning: onely I haue presumed to present vnto you this briefe discourse, by which you may iudge how profitable this land is like to succeede, as well to your selfe, (by whose direction and charge, and by whose seruants this our discouerie hath beene performed) as also to her Highnesse, and the Common wealth, in which we hope your wisedome willbe satisfied, considering that as much by vs hath bene brought to light, as by those smal meanes, and number of men we had, could any way haue bene expected, or hoped for.

The tenth of May we arriued at the Canaries, and the tenth of Iune in this present yeere, we were fallen with the Islands of the West Indies. . . .

The second of Iuly, we found shole water, wher we smelt so sweet and so strong a smel, as if we had bene in the midst of some delicate garden abounding with all kinde of odoriferous flowers, by which we were assured, that the land could not be farre distant: and keeping good watch, and bearing but slacke saile, the fourth of the same moneth we arriued vpon the coast, which we supposed to be a continent and firme lande, and we sayled along the same a hundred and twentie English miles before we could finde any entrance, or riuer issuing into the Sea. The first that appeared vnto vs, we entred, though not without some difficultie, & cast anker about three harquebuz-shot within the hauens mouth, on the left hand of the same: and after thankes giuen to God for our safe arriual thither, we manned our boats, and went to view the land next adioyning, and to take possession of the same, in the right of the Queenes most excellent Maiestie, as rightfull Queene, and Princesse of the same, and after deliuered the same ouer to your vse, according to her Maiesties grant, and letters patent, vnder her Highnesse great Seale. Which being performed, according to the ceremonies vsed in such enterprises, we viewed the land about vs, being, whereas we first landed, very sandie and low towards the waters side, but so full of grapes, as the very beating and surge of the Sea ouerflowed them. . . .

We passed from the Sea side towardes the toppes of those hilles, next adioyning, being but of meane higth, and from thence wee behelde the Sea on both sides to

the North, and to the South, finding no ende any of both wayes. This lande lay stretching it selfe to the West, which after wee found to bee but an Island of twentie miles long, and not above sixe miles broade. Vnder the banke or hill whereon we stoode, we behelde the vallyes replenished with goodly Cedar trees, and hauing discharged our harquebuz-shot, such a flocke of Cranes (the most pat [part] white) arose vnder vs, with such a cry redoubled by many ecchoes, as if an armie of men had showted all together.

This Island had many goodly woodes full of Deere, Conies, Hares, and Fowle, euen in the middest of Summer in incredible abundance. The woodes are not such as you finde in Bohemia, Moscouia, or Hercynia, barren and fruitles, but the highest and reddest Cedars in the world, farre bettering the Ceders of the Açores, of the Indies, or Lybanus, Pynes, Cypres, Sassaphras, the Lentisk, or the tree that beareth the Masticke, the tree that beareth the rine of blacke Sinamon, of which Master Winter brought from the streights of Magellan, and many other of excellent smell and qualitie. We remained by the side of this Island two whole dayes before we saw any people of the Countrey: the third day we espied one small boate

rowing towardes vs, hauing in it three persons: this boat came to the Island side, foure harquebuz-shot from our shippes, and there two of the people remaining, the third came along the shoreside towards vs, and wee being then all within boord, he walked vp and downe vpon the point of the land next vnto vs: then the Master and the Pilot of the Admirall, Simon Ferdinando, and the Captaine Philip Amadas, my selfe, and others rowed to the land, whose comming this fellow attended, neuer making any shew of feare or doubt. And after he had spoken of many things not vnderstood by vs, we brought him with his owne good liking, aboord the ships, and gaue him a shirt, a hat, & some other things, and made him taste of our wine, and our meat, which he liked very wel: and after hauing viewed both barks, he departed, and went to his own boate again, which hee had left in a little Coue or Creeke adioyning: assoone [as soon] as hee was two bow shoot into the water, he fell to fishing, and in lesse than halfe an houre, he had laden his boate as deepe, as it could swimme, with which hee came againe to the point of lande, and there he deuided his fish into two parts, pointing one part to the ship, and the other to the pinnesse: which, after he had (as much as he might) requited the former benefites receaued, departed out of our sight.

The next day there came vnto vs diuers boates, and in one of them the Kings brother, accompanied with fortie or fiftie men, very handsome and goodly people, and in their behauior as mannerly and ciuill as any in Europe. His name was Granganimeo, and the king is called Wingina, the countrey Wingandacoa. . . .

The King is greatly obeyed, and his brothers and children reuerenced: the King himselfe in person was at our being there, sore wounded in a fight which hee had with the King of the next countrey. . . . A day or two after this, we fell to trading with them, exchanging some things that we had, for Chamoys, Buffe, and Deere skinnes: when we shewed him all our packet of merchandize, of all things that he sawe, a bright tinne dish most pleased him, which hee presently tooke up and clapt it before his breast, and after made a hole in the brimme thereof and hung it about his necke, making signes that it would defende him against his enemies arrowes: for those people maintaine a deadly and terrible warre, with the people and King adioying. We exchanged our tinne dish for twentie skinnes, worth twentie Crownes, or twentie Nobles: and a copper kettle for fiftie skins woorth fifty Crownes. They offered vs good exchange for our hatchets, and axes, and for kniues, and would haue giuen anything for swordes: but wee would not depart with any. After two or three dayes the Kings brother came aboord the shippes and dranke wine, and eat of our meat and of our bread, and liked exceedingly thereof: and after a few dayes ouerpassed, he brought his wife with him to the ships, his daughter and two or three children: his wife was very well fauoured, of meane stature and very bashfull: shee had on her backe a long cloake of leather, with the furre side next to her body, and before her a piece of the same: about her forehead shee had a bande of wite Corall, and so had her husband many times: in her eares shee had bracelets of pearles hanging downe to her middle, (whereof

wee deliuered your worship a little bracelet) and those were of the bignes of good pease. The rest of her women of the better sort had pendants of copper hanging in either eare, and some of the children of the kings brother and other noble men, haue fiue or sixe in either eare: he himselfe had vpon his head a broad plate of golde, or copper, for being unpolished we knew not what mettal it should be, neither would he by any meanes suffer vs to take it off his head, but feeling it, it would bow very easily. His apparell was as his wiues, onely the women weare their haire long on both sides, and the men but on one. They are of colour yellowish, and their haire black for the most part, and yet we saw children that had fine auburne and chestnut coloured haire.

Indians Burning Out a Canoe.
(From an old print.)

. . . Their boates are made of one tree, either of Pine, or of Pitch trees: a wood not commonly knowen to our people, nor found growing in England. They haue no edge-tooles to make them withall: if they haue any they are very fewe, and those it seemes they had twentie yeres since, which, as two men declared, was out of a wrake which happened vpon their coast of some Christian ship, . . . The manner of making their boates is thus: they burne downe some great tree, or take such as are winde fallen, and putting gumme and rosen vpon one side thereof, they set fire into it, and when it hath burnt it hollow, they cut out

the coale with their shels, and euer where they would burne it deeper or wider they lay on gummes, which burne away the timber, and by this meanes they fashion very fine boates, and such as will transport twentie men. Their oares are like scoopes, and many times they set with long poles, as the depth serueth.

The Kings brother had great liking of our armour, a sword, and diuers other things which we had: and offered to lay a great boxe of pearle in gage for them: but we refused it for this time, because we would not make them knowe, that we esteemed thereof, untill we had vnderstoode in what places of the countrey the pearle grew: which now your Worshippe doeth very well vnderstand. . . .

The soile is the most plentifull, sweete, fruitfull and wholesome of all the worlde: there are above fourteene severall sweete smelling timber trees, and the most part of their underwoods are Bayes and such like: they have those Okes that we have, but farre greater and better. After they had bene divers times aboord our shippes, my selfe, with seven more went twentie mile into the River, that runneth towarde the Citie of Skicoak, which River they call Occam: and the evening following wee came to an Island which they call Roanoak, distant from the harbour by which we entred, seven leagues: and at the North end thereof was a village of nine houses, built of Cedar, and fortified round about with sharpe trees, to keepe out their enemies, and the entrance into it made like a turnpike very artificially; when wee came towardes it, standing neere unto the waters side, the wife of Granganimo the Kings brother came running out to meete us very

cheerfully and friendly, her husband was not then in the village; some of her people shee commanded to drawe our boate on shore for the beating of the billoe: others she appointed to carry us on their backes to the dry ground, and others to bring our oares into the house for feare of stealing. When we were come into the utter roome, having five roomes in her house, she caused us to sit downe by a great fire, and after tooke off our clothes and washed them, and dryed them againe: some of the women plucked off our stockings and washed them, some washed our feete in warme water, and she herselfe tooke great paines to see all things ordered in the best maner shee could, making great haste to dresse some meate for us to eate.

After we had thus dryed ourselves, she brought us into the inner roome, where shee set on the boord standing along the house, some wheate like furmentie, sodden Venison, and roasted, fish sodden, boyled and roasted, Melons rawe, and sodden, rootes of divers kindes and divers fruites: their drinke is commonly water, but while the grape lasteth, they drinke wine, and for want of caskes to keepe it, all the yere after they drink water, but it is sodden with Ginger in it and blacke Sinamon, and sometimes Sassaphras, and divers other wholesome, and medicinable hearbes and trees. We were entertained with all love and kindnesse, and with much bountie after their maner, as they could possibly devise. We found the people most gentle, loving and faithfull, voide of all guile and treason, and such as live after the manner of the golden age. The people only care howe to defend themselves from the cold in their short winter, and to feed them-

selves with such meat as the soile affordeth; their meat is very well sodden, and they make broth very sweet and savorie; their vessels are earthen pots, very large, white and sweete, their dishes are wooden platters of sweet timber: within the place where they feede was their lodging, and within that their Idoll, which they worship, of whome they speake incredible things.

While we were at meate, there came in at the gates two or three men with their bowes and arrowes from hunting, whom when wee espied, we beganne to looke one towardes another, and offered to reach our weapons: but assoone as shee espied our mistrust, shee was very much mooved, and caused some of her men to runne out, and take away their bowes and arrowes and breake them, and with all beate the poore fellowes out of the gate againe.

When we departed in the evening, and would not tary all night she was very sorry, and gave us into our boate our supper halfe dressed, pottes and all, and brought us to our boate side, in which wee lay all night, remooving the same a prettie distance from the shoare: shee, perceiving our jealousie, was much grieved, and sent divers men and thirtie women, to sit all night on the banke side by us, and sent us into our boates five mattes to cover us from the raine, using very many wordes, to entreate us to rest in their houses: but because wee were fewe men, and if wee had miscaried, the voyage had bene in very great danger, wee durst not adventure any thing, although there was no cause of doubt: for a more kinde and loving people there can not be found in the worlde, as farre as we have hitherto had triall.

Beyond this Island there is the maine lande, and over against this Island falleth into this spacious water the great river called Occam by the inhabitants on which standeth a towne called Pomeiock, & six days journey from the same is situate their greatest citie, called Skicoak, which this people affirme to be very great: but the Savages were never at it, only they speake of it by the report of their fathers and other men, whom they have heard affirme it to bee above one houres journey about.

Into this river falleth another great river, called Cipo, in which there is found great store of Muskles, in which there are pearles: likewise there descendeth into this Occam, another river, called Nomopana, on the one side whereof standeth a great towne called Chawanook, and the Lord of that towne and countrey is called Pooneno: this Pooneno is not subject to the King of Wingandacoa, but is a free Lord: beyond this country is there another king, whom they cal Menatonon, and these three kings are in league with each other. Towards the South-west, foure days journey is situate a towne called Sequotan, which is the Southermost towne of Wingadacoa, neere unto which, sixe and twentie yeres past there was a ship cast away, whereof some of the people were saved, and those were white people whom the countrey people preserved.

And after ten dayes remaining in an out Island unhabited, called Wocokon, they with the help of some of the dwellers of Sequotan fastened two boates of the countrey together & made mastes unto them and sailes of their shirtes, and having taken into them such victuals as the countrey yeelded, they departed

after they had remained in this out Island three weekes; but shortly after it seemed they were cast away, for the boates were found upon the coast cast a land in another Island adjoyning other than these, there was never any people apparelled, or white of colour, either seene or heard of amongst these people, and these aforesaid were seene onely of the inhabitantes of Secotan, which appeared to be very true, for they wondred marvelously when we were amongst them at the whitenes of our skins, ever coveting to touch our breasts, and to view the same. Besides they had our ships in marvelous admiration, & all things els were so strange unto them, as it appeared that none of them had ever seen the like.

When we discharged any piece, were it but an hargubuz, they would tremble thereat for very feare and for the strangenesse of the same: for the weapons which themselves use are bowes and arrowes: the arrowes are but of small canes, headed with a sharpe shell or tooth of a fish sufficient ynough to kill a naked man. Their swordes be of wood, hardened: likewise they use wooden breastplates for their defence. They have besides a kinde of club, in the end whereof they fasten the sharpe horns of a stagge, or other beast. When they go to warres they cary about with them their idol, of whom they aske counsel, as the Romans were woont of the

Indian Weapons.

Oracle of Apollo. They sing songs as they march towardes the battell in stead of drummes and trumpets; their warres are very cruell and bloody by reason whereof, and of their civill dissentions which have happened of late yeeres amongst them, the people are marvelously wasted and in some places the countrey left desolate.

Adjoyning to this countrey aforesaid called Secotan beginneth a countrey called Pomouik, belonging to another king whom they call Piamacum, and this king is in league with the next king adjoyning towards the setting of the Sunne, and the countrey Newsiok, situate upon a goodly river called Neus: these kings have mortall warre with Wingina, king of Wingandacoa: but about two yeeres past there was a peace made betweene the King Piemacum, and the Lord of Secotan, as these men which we have brought with us to England have given us to understand; but there remaineth a mortall malice in the Secotanes, for many injuries & slaughters done upon them by this Piemacum. They invited divers men, and thirtie women of the best of his countrey to their towne to a feast: and when they were altogether merry, & praying before their Idoll, . . . the captaine or lord of the town came suddenly upon them, and slewe them every one, reserving the women and children: and these two have oftentimes since perswaded us to surprise Piemacum his towne, having promised and assured us, that there will be found in it great store of commodities. But whether their perswasion be to the ende they may be revenged of their enemies, or for the love they beare to us, we leave that to the tryall hereafter.

Beyond this Island called Roanoak, are maine Islands very plentiful of fruits and other naturall increases, together with many townes and villages, along the side of the continent, some bounding upon the Islands, and some stretching up further into the land.

When we first had sight of this countrey, some thought the first land we saw to bee the continent; but after we entred into the Haven, we saw before us another mighty long Sea: for there lyeth along the coast a tracte of Islands, two hundredth miles in length, adjoyning to the Ocean sea, and betweene the Islands, two or three entrances: when you are entred betweene them, these Islands being very narrow for the most part, as in some places sixe miles broad, in some places lesse, in few more, then there appeareth another great Sea, containing in bredth in some places, forty, and in some fifty, in some twenty miles over, before you come unto the continent: and in this inclosed Sea there are above an hundredth Islands of divers bignesses, whereof one is sixteene miles long, at which we were, finding it a most pleasant and fertile ground; replenished with goodly Cedars and divers other sweete woods, full of Corrants, of flaxe, and many other notable commodities, which we at that time had no leasure to view. Besides this Island there are many, as I have sayd, some of two, or three, of foure, of five miles, some more, some lesse, most beautifull and pleasant to behold, replenished with Deere, Conies, Hares and divers beasts, and about them the goodliest and best fish in the world, and in greatest abundance.

Thus, Sir, we have acquainted you with the particulars of our discovery made this present voyage, as farre

foorth as the shortnesse of the time we there continued would afoord us to take viewe of: and so contenting our selves with this service at this time, which wee hope hereafter to inlarge, as occasion and assistance shall be given, we resolved to leave the countrey, and to apply ourselves to returne for England, which we did accordingly, and arrived safely in the West of England about the middest of September.

PALISADED INDIAN TOWN.
(From an old cut.)

CHAMPLAIN'S EXPEDITIONS INTO NEW YORK

(From Voyages de la Nouvelle France.)

By LE SR. DE CHAMPLAIN.

Champlain.

I LEFT the Rapid of the said River of the Iroquois on the 2d of July (1609). All the savages began carrying their canoes, arms and traps, over land about a league and a half to avoid the current and force of the Rapid. This was quickly effected.

They immediately launched the canoes into the water, two men in each with their baggage, whilst one of the men went by land about a league and a half, which was the probable extent of said Rapid, though not so violent as at the foot, except at some points where rocks obstructed the River which is no more than three to four hundred paces wide. After the Rapid was passed, though not without trouble, all the Indians who had gone by land over a pretty good road and level country, though covered with timber, re-embarked in their canoes. My men were also on land and I on the water in a canoe. They reviewed all their force and found twenty-four

canoes with sixty men. After having completed their review, we continued our journey as far as an Island three leagues long, covered with the finest pines I ever beheld. They hunted and caught some wild animals there. Passing thence about three leagues farther on, we camped in order to rest for the night.

Forthwith some began to cut down timber; others to pull off bark to cover lodges to shelter them; others to fall large trees with which to barricade their lodges on the shore. They know so well how to construct these barricades, that five hundred of their enemies would find considerable difficulty in forcing them in less than two hours, without great loss. They do not fortify the side of the river along which their canoes are ranged, so as to be able to embark should occasion require.

After they had camped, they despatched three canoes with nine good men, as is their custom at all their encampments, to reconnoitre within two or three leagues, if they see anything. After which they retire. They depend the whole night on the exploration of the vanguard, which is a bad habit of theirs. For sometimes their enemies surprise them asleep, and kill them without having an opportunity of recovering their feet to defend themselves.

Remarking that, I remonstrated with them against the error they committed; told them to watch, as they saw us do, all night, and to have outposts to spy and see if they could perceive anything; and not to live in that style, like cattle. They told me they couldn't watch, and that they labored all day hunting. So that, when they go to war they divide their force into

three — to wit — one party, scattered in divers places, hunting; another forms the main body, which is always under arms; and another party as a vanguard, to scout along the river and see whether they will not discover some trail or mark indicating the passage of friends or enemies. This they ascertain by certain marks the chiefs of one nation give to those of another, which are not always alike; notifying each other from time to time when they alter any. By this means they recognize whether those who have passed are friends or enemies. The hunters never hunt in advance of the main body or the scouts, so as not to create any alarm or disorder; but in the rear and in the direction where they do not apprehend enemies. They thus continue until they are two or three days' journey from the foe, when they advance stealthily by night, all in a body, except the scouts, and retire by day into the picket fort where they repose, without wandering abroad, making any noise or building a fire, even for cooking during that time, so as not to be discovered, should their enemies happen to pass. The only fire they make is, to smoke. They eat dried Indian meal which they steep in water like porridge. They prepare this meal for use when they are pinched, and when they are near the enemy, or when retreating; after their attacks they do not amuse themselves hunting, retreating precipitately.

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We left next day, continuing our route along the river as far as the mouth of the Lake. Here are a number of beautiful, but low Islands filled with very fine woods and prairies, a quantity of game and wild

animals, such as stags, deer, fawns, roebucks, bears, and other sorts of animals that come from the mainland to the said islands. We caught a quantity of them. There is also quite a number of beavers, as well in the river as in several other streams which fall into it. These parts, though agreeable, are not inhabited by any Indians, in consequence of their wars. They retire from the rivers as far as possible, deep into the country, in order not to be so soon discovered.

Next day we entered the Lake, which is of considerable extent; some fifty or sixty leagues, where I saw four beautiful islands ten, twelve, and fifteen leagues in length, formerly inhabited, as well as the Iroquois River, by Indians, but abandoned since they have been at war the one with the other. Several rivers, also, discharge into the lake, surrounded by a number of fine trees similar to those we have in France, with a quantity of vines handsomer than any I ever saw; a great many chestnuts, and I had not yet seen except the margin of the Lake, where there is a large abundance of fish of divers species. Among the rest there is one called by the Indians of the country Chaousarou, of divers lengths. The largest, I was informed by the people, are of eight to ten feet. I saw one of five, as thick as a thigh, with a head as big as two fists, with jaws two feet and a half long, and a double set of very sharp and dangerous teeth. The form of the body resembles that of the pike, and it is armed with scales that a thrust of a poniard cannot pierce; and is of a silver gray color. The point of the snout is like that of a hog. This fish makes war on all others in the lakes and rivers and possesses, as those people assure me, a wonderful in-

stinct; which is, that when it wants to catch any birds, it goes among the rushes or reeds, bordering the lake in many places, keeping the beak out of the water without budging, so that when the birds perch on the beak, imagining it a limb of a tree, it is so subtle that closing the jaws which it keeps half open, it draws the birds under water by the feet. The Indians gave me a head of it, which they prize highly, saying, when they have a headache they let blood with the teeth of this fish at the seat of the pain which immediately goes away.

Continuing our route along the west side of the Lake, contemplating the country, I saw on the east side very high mountains capped with snow. I asked the Indians if those parts were inhabited? They answered me, Yes, and that they were Iroquois, and that there were in those parts beautiful vallies, and fields fertile in corn as good as I had ever eaten in the country, with an infinitude of other fruits, and that the Lake extended close to the mountains, which were, according to my judgment, fifteen leagues from us. I saw others, to the south, not less high than the former; only, that they were without snow. The Indians told me it was there we were to go to meet their enemies, and that they were thickly inhabited, and that we must pass by a waterfall which I afterwards saw, and thence enter another lake three or four leagues long, and having arrived at its head, there were four leagues overland to be travelled to pass to a river which flows towards the coast of the Almouchiquois, tending towards that of the Almouchiquois, and that they were only two days going there in their canoes, as I understood since from

some prisoners we took, who, by means of some Algonquin interpreters, who were acquainted with the Iroquois language, conversed freely with me about all they had noticed.

Now, on coming within about two or three days' journey of the enemy's quarters, we travelled only by night and rested by day. Nevertheless, they never omitted their usual superstitions to ascertain whether their enterprise would be successful, and often asked me whether I had dreamed and seen their enemies. I answered, No; and encouraged them and gave them good hopes. Night fell, and we continued our journey until morning when we withdrew into the picket fort to pass the remainder of the day there. About ten or eleven o'clock I lay down after having walked some time around our quarters, and falling asleep, I thought I beheld our enemies, the Iroquois, drowning within sight of us in the Lake near a mountain; and being desirous to save them, that our savage allies told me that I must let them all perish as they were good for nothing. On awaking, they did not omit, as usual to ask me, if I had any dream? I did tell them, in fact, what I had dreamed. It gained such credit among them that they no longer doubted but they should meet with success.

At nightfall we embarked in our canoes to continue our journey, and as we advanced very softly and noiselessly, we encountered a war party of Iroquois, on the twenty-ninth of the month, about ten o'clock at night, at the point of a cape which juts into the Lake on the west side. They and we began to shout, each seizing his arms. We withdrew towards the water and the

Iroquois repaired on shore, and arranged all their canoes, the one beside the other, and began to hew down trees with villainous axes, which they sometimes got in war, and others of stone, and fortified themselves very securely.

Our party, likewise, kept their canoes arranged the one alongside the other, tied to poles so as not to run adrift, in order to fight all together should need be. We were on the water about an arrow-shot from their barricades.

When they were armed and in order, they sent two canoes from the fleet to know if their enemies wished to fight, who answered they desired nothing else; but that just then, there was not much light, and that we must wait for day to distinguish each other, and that they would give us battle at sunrise. This was agreed to by our party. Meanwhile the whole night was spent in dancing and singing, as well on one side as on the other, mingled with an infinitude of insults and other taunts, such as the little courage they had; how powerless their resistance against their arms, and that when day would break they should experience this to their ruin. Ours, likewise, did not fail in repartee; telling them they should witness the effects of arms they had never seen before; and a multitude of other speeches, as is usual at a siege of a town. After the one and the other had sung, danced, and parliamented enough, day broke. My companions and I were always concealed, for fear the enemy should see us preparing our arms the best we could, being however separated, each in one of the canoes belonging to the savage Montagnars. After being equipped with light armor we took each an

arquebus and went ashore. I saw the enemy leave their barricade; they were about two hundred men, of strong and robust appearance, who were coming slowly towards us, with a gravity and assurance which greatly pleased me, led on by three chiefs. Ours were marching in similar order, and told me that those who bore three lofty plumes were the chiefs, and that there were but these three and they were to be recognized by those plumes, which were considerably larger than those of their companions, and that I must do all I could to kill them. I promised to do what I could, and that I was very sorry they could not clearly understand me, so as to give them the order and plan of attacking their enemies, as we should indubitably defeat them all; but there was no help for that; that I was very glad to encourage them and to manifest to them my good will when we should be engaged.

The moment we landed they began to run about two hundred paces towards their enemies who stood firm, and had not yet perceived my companions, who went into the bush with some savages. Ours commenced calling me in a loud voice, and making way for me opened in two, and placed me at their head, marching about twenty paces in advance, until I was within thirty paces of the enemy. The moment they saw me they halted, gazing at me and I at them. When I saw them preparing to shoot at us, I raised my arquebus, and aiming directly at one of the three chiefs, two of them fell to the ground by this shot, and one of their companions received a wound of which he died afterwards. I had put four balls in my arquebus. Ours, on witnessing a shot so favorable for them, set up such tremen-

dous shouts that thunder could not have been heard; and yet, there was no lack of arrows on one side and the other. The Iroquois were greatly astonished seeing two men killed so instantaneously, notwithstanding they were provided with arrow-proof armor woven of cotton-thread and wood; this frightened them very much. Whilst I was re-loading, one of my companions in the bush fired a shot, which so astonished them

Champlain on the Warpath.

anew, seeing their chiefs slain, that they lost courage, took to flight and abandoned the field and their fort, hiding themselves in the depths of the forest, whither pursuing them, I killed some others. Our savages also killed several of them and took ten or twelve prisoners. The rest carried off the wounded. Fifteen or sixteen of ours were wounded by arrows; they were promptly cured.

After having gained the victory, they amused themselves plundering Indian corn and meal from the

enemy; also their arms which they had thrown away in order to run the better. And having feasted, danced and sung, we returned three hours afterwards with the prisoners.

The place where this battle was fought is in forty-three degrees some minutes latitude, and I named it Lake Champlain.

On the seventeenth day of August I arrived at Cahiague, where I was received with great joy and gratitude by all the Indians of the Country. They had intelligence that a certain Nation of their allies with whom the Iroquois were at war and who resided three good days' journey higher up (*plus haut*) than the Entouhonorons, wished to assist this expedition with five hundred good men, and enter into alliance and amity with us, having a great desire to see us, and that we should wage war all together; and they testified their satisfaction at being acquainted with us; and I, in like manner, for having obtained this opportunity to satisfy the desire, I had, of learning something about that country. That Nation is very warlike according to the representation of the Attigouotans. They are only three villages in the midst of more than twenty others against which they wage war, not being able to receive assistance from their friends, especially as they must pass through the country of the Chouontouaroüon which is very populous, or else go a great way around.

Having arrived at this village, it suited me to sojourn there whilst waiting until the warriors should come in from the circumjacent villages, then to leave it as soon as possible. During this interval, it was a continual series of feasting and dancing, through joy for seeing

us so determined to assist them in their war, and as a guarantee already of victory.

On the assembling of the major part of our forces, we set out from the village on the first day of September, and passed along the border of a very small lake, distant three leagues from the village where they take great quantities of fish which they preserve for winter. There is another lake adjoining, twenty-six leagues in circumference, descending into the smaller by a channel where a great catch of said fish is taken by means of a number of stakes, which almost close the passage, leaving only small openings over which they place their nets to catch the fish. These two lakes disembogue into the Fresh Sea [Lake Huron]. We sojourned a while at this place to wait for the rest of our Indians, where being all assembled with their arms, meal, and necessaries, consultation was had for the selection of the most resolute men of the troop, to carry advice of our departure to those who were to assist and join us with five hundred men, in order that we may meet at the same time, before the enemy's fort. This deliberation adopted, they despatched two canoes, with twelve of the most robust Indians, and one of our interpreters, who requested of me to make the voyage. This I willingly permitted him as he was so disposed, and would see the country by that means and acquire a knowledge of the people who inhabit it. The danger was not trifling inasmuch as they had to pass through the midst of enemies. We continued our route towards the enemy, and made about five or six leagues through the lakes, whence the savages carried the canoes about ten leagues over land and came to another lake extend-

ing about six or seven leagues in length, and three in width. A river issues from this which discharges into the Great Lake of the Entouhonorons. And having traversed this lake, we pass a waterfall, proceeding always down along the course of said river, about sixty-four leagues, which is the entrance of the said valley of the Entouhonorons, and passed by land five rapids (*sauts*), some four or five leagues long, where there are several lakes of pretty considerable extent; the said river which flows between them also abounds with good fish, and all this country is very fine and agreeable. In several places along the banks, the trees would seem to have been planted for ornament. All this country was formerly inhabited by savages, who have since been constrained to abandon it, through fear of their enemies. Vines and nuts are in great quantities, and grapes come to maturity there, but they leave always a sharp sour taste, which proceeds from want of cultivation; but those that have been cultivated in these parts are of pretty good flavor.

. . . . . .

We continued along the border of the Lake of the Entouhonorons, always hunting as above mentioned; being there, we crossed over at one of the extremities, tending eastward, which is the beginning (*l'entrée*) of the river Saint Lawrence, in the parallel of forty-three degrees of Latitude. There are some beautiful and very large Islands in this passage. We made about fourteen leagues to cross to the other side of the lake, proceeding southward, towards the enemy's country. The Indians concealed all their canoes in the woods, near the bank. We travelled by land about four leagues

over a sandy plain, where I observed a very pleasing and fine country, watered by numerous small streams, and two little rivers which empty into said lake, and a number of ponds and prairies, where there was an infinite quantity of game, a great many vines and fine trees, vast number of chestnuts, the fruit of which was yet in the shell. It is quite small, but well flavored.

All the canoes being thus concealed, we left the bank of the lake, which is eighty leagues long and twenty-five wide. It is inhabited for the greater part by savages, along the sides of the streams, and we continued our journey overland some twenty-five to thirty leagues. In the course of four days, we traversed a number of streams and one river issuing from a lake which empties into that of the Entouhonorons. This lake is twenty-five to thirty leagues in circumference, with many beautiful islands, and is the Iroquois fishing-ground, fish being in abundance there.

The 9th of October, our Indians going out scouting, encountered eleven savages whom they took prisoners; to wit, four women, three boys, one girl and three men, who were going fishing, four leagues distant from the enemy's fort. Now is to be noted that one of the chiefs seeing these prisoners, cut the finger off one of those poor women, as the commencement of their usual tortures. Whereupon I interfered, and censured the Iroquet captain, representing to him that a warrior, as he called himself, was not in the habit of acting cruelly towards women, who have no defence but their tears and who, by reason of their helplessness and feebleness, ought to be treated with humanity. That on the contrary this act would be supposed to proceed from a vile

and brutal courage, and that if he committed any more of those cruelties, he would not encourage me to assist them, nor to favor their war. Whereupon he replied, that their enemies treated them in the same manner. But since such customs displeased me, he would not act so any more to women, but exclusively to men.

Next day, at three o'clock in the afternoon we arrived before the enemy's fort, where the savages had some skirmishes, the one against the other, though it was not our design to discover ourselves until the morrow: but the impatience of our savages would not brook this, as well through the desire they felt to see us fire on their enemies, as to liberate some of their men who had ventured too far. Then I advanced and presented myself, but with the few men I had; nevertheless I showed them what they never saw nor heard before. For as soon as they saw us, and heard the reports of the arquebus, and the balls whistling about their ears, they retired promptly within their fort, carrying off their wounded and dead; and we retreated in like manner to our main body, with five or six of our wounded, one of whom died.

This being done, we retired within gun-shot, beyond the view of the enemy, contrary, however, to my advice, and to what they had promised me. Which moved me to make use of and express to them rude and angry words, in order to incite them to their duty, foreseeing, that if every thing went according to their fantasy, and council, nothing but misfortune would result, to their ruin and destruction. Nevertheless, I failed not to send to them to propose means necessary to be used to overcome their enemies; which was, to construct a

movable tower (*cavalier*) of timber to overlook their pickets, whereupon I should post four or five of our arquebuseers, who would fire over the palisades and galleries, which were well supplied with stones, and by this means, the enemy who annoyed us from their galleries would be dislodged; and in the mean time we should give orders for some boards to form a species of parapet to cover and protect our men from the arrows and stones. These things, namely, the tower and parapets could be moved by main force; and one was made in such a way that water could not extinguish the fire to be applied to the front of the fort; and those on the tower would do their duty with some arquebuseers posted there, and thus acting, we should so defend ourselves that they could not approach to extinguish the fire, that we should apply to their pickets. Approving this, they began next morning, to construct and prepare said tower and parapets; and made such progress that these were finished in less than four hours. They were expecting the arrival this day of the five hundred men that had been promised, which was however doubtful; not being at the rendezvous, as directed and as they had promised, our savages were much afflicted. But seeing that they were numerous enough to capture the forts, and for my part, considering delay to be always prejudicial, at least in most cases, I urged them to attack said fort, representing that the enemy discovering their strength and the effect of our arms, which pierced what was arrow proof, would barricade and shelter themselves, which indeed, they did very well. For their village was enclosed with strong quadruple palisades of large timber, thirty feet high, inter-

locked the one with the other, with an interval of not more than half a foot between them; with galleries in the form of parapets, defended with double pieces of timber, proof against our arquebuses, and on one side they had a pond with a never failing supply of water, from which proceeded a number of gutters which they had laid along the intermediate space, throwing the water without, and rendered it effectual inside, for the purpose of extinguishing fire.

Such was their mode of fortification and defence, which was much stronger than the villages of the Attigouatans [Hurons] and others.

We advanced, then, to attack the village, causing our tower to be carried by two hundred of our strongest men. They placed it within a pike's length in front and I posted on it four arqubuseers, well sheltered from any arrows and stones that might have been shot at them. Nevertheless, the enemy did not, for all that, cease discharging and throwing a great number of arrows and stones over their pickets. But the multitude of arquebus shots that were fired, constrained them to vacate and abandon their galleries. But according as the tower was moved, instead of bringing the parapets as ordered and that on which we were to have placed the fire, they abandoned them and commenced to yell against their enemies, shooting arrows within the fort, which, in my opinion, did not do much execution. They are very excusable, for they are not soldiers, and are moreover averse to discipline or correction and do only what they like. Wherefore, one inconsistently applied the fire to the wrong side of the fort, or to leeward, so that it produced no effect. On

the fire being kindled, the most of the savages began to set wood against the pickets but in such small quantities, that the fire did not much good. The disorder that supervened was in consequence so great, that it was impossible to hear. In vain I cried to them and remonstrated as well as I was able against the imminent danger to which they exposed themselves by their stupidity. They heard nothing in consequence of the violent noise they made. Seeing that by shouting I was only splitting my skull, and that my remonstrances were in vain and that this disorder was irremediable, I resolved to do what was in my power with my men, and fire on those we could discover or perceive. Yet, the enemy profited by our disorder. They went to the water and discharged it in such abundance, that rivers, it may be said, spouted from their gutters, so that the fire was extinguished in less than no time, and they continued to pour arrows on us like hail. Those on the tower killed and wounded a great many.

This engagement lasted about three hours. Two of our chiefs and leaders were wounded; to wit, one called Ochateguain; the other Orani, and about fifteen individuals besides. The rest seeing their folks, and some of their chiefs wounded, began to talk of retreating, without fighting any more, expecting the five hundred men whose arrival was not far off; and so they withdrew, having accomplished nothing save this disorderly splutter. However, the chiefs have no absolute control of their companions who follow their whim, and act their pleasure, which is the cause of their disorder and ruins all their affairs. In having taken a resolution, any poor devil can make them violate it and change

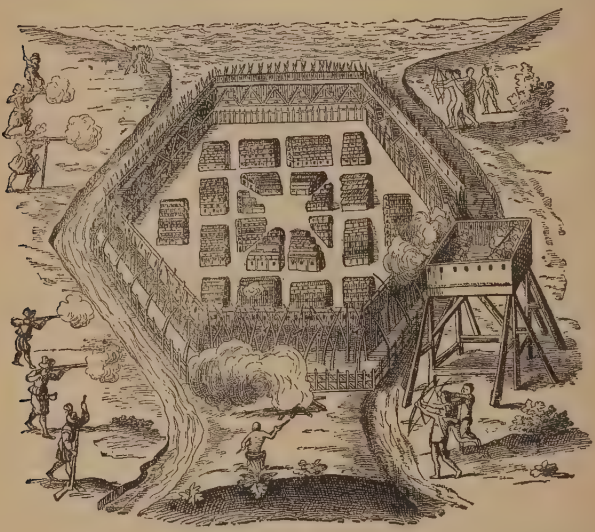
their plan. Thus, the one with the other, they effect nothing as may be seen by this expedition.

Having received two wounds from arrows, one in the leg and the other in the knee, which sorely incommoded me, we withdrew into our fort. Being all assembled there, I remonstrated with them several times on account of the disorder that had occurred. But all my talk was in vain; they said many of their men had been wounded and I also, and that it would be very inconvenient and fatiguing to carry them, on the retreat; that there was no means of returning again to the enemy as I had proposed to them; but that they would willingly wait four days more for the five hundred men that were expected, on whose arrival they would renew the effort against the enemy, and execute what I had told them, better than they had already done. It was necessary to stop there, to my great regret. Here is represented the manner in which they fortify their towns, and by this engraving it may be understood and seen that those of friends and enemies are similarly fortified.

Next day blew a very strong and violent wind which lasted two days, particularly favorable for setting the enemy's fort in a blaze, which I strongly urged on them. But fearing a failure, and moreover representing themselves as wounded, they would not do anything.

We remained encamped until the 16th of the month. Several skirmishes occurred during that time between the enemy and our people who became oftenest engaged with them rather by their imprudence than through want of courage; and I can assure you, that every time they made a charge, we were obliged to extricate them

from the difficulty, not being able to extricate themselves except by the help of our arquebuses which the enemy dreaded and greatly feared. For as soon as they perceived one of our arquebuseers, they immediately retreated, telling us by way of persuasion not to meddle with their fights, and that their enemies had very little



courage to require our assistance; with many other such like discourses.

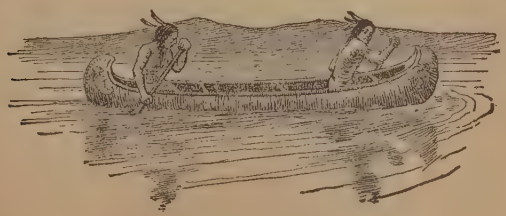
Seeing that the five hundred men were not coming, they proposed to depart and retreat at once, and began to make certain litters to convey their wounded, who are put in them, tumbled in a heap, doubled and strapped in such a way that it is impossible to stir; less than an infant in its swaddling clothes; not without considerable pain, as I can certify, having been carried

several days on the back of one of our Indians, thus tied and bound, so that I lost all patience. As soon as I had strength to bear my weight, I got out of this prison, or to speak plainer out of hell.

The enemy pursued us about the distance of half a league, endeavoring to catch some of the rear guard. But their labor was in vain and they retired.

All I remarked in their wars, is, that they retreat in good order; placing all their wounded and old people in their centre, they being in front, on the wings and in the rear, well armed and arranged in such wise according to order, until they are in a place of safety, without breaking their line. Their retreat was very tedious, being from twenty-five to thirty leagues, which greatly fatigued the wounded and those who carried them, though they relieved each other from time to time.

On the 18th of said month some snow fell which melted rapidly. It was accompanied by a strong wind that greatly annoyed us. Nevertheless we contrived to get to the borders of the Lake of the Entouhonorons and at the place where we had concealed our canoes which we found safe; for we feared lest the enemy might have broken them.



THE DISCOVERY OF THE HUDSON RIVER

THE VOYAGES OF HENRY HUDSON

While America was indeed the New World, there was great rivalry between the Dutch and English merchants. The Dutch East India Company, first of the great monopolies, controlled the commerce beyond the Cape of Good Hope on the east, and the Straits of Magellan on the west, and the English merchants had to seek a shorter way of their own to Asia. Many thought that there might be such a passage to the northwest around the new lands which lay unexplored between Europe and the Indies, and they selected the daring navigator Henry Hudson to investigate. Twice he made the attempt, reaching the shores of Greenland, and penetrating nearer to the Pole than had any previous explorer. But both times he was baffled by the icy barriers which stopped his passage, and returned unsuccessful. A third time, however, he ventured forth to discover the short cut which he felt sure must exist; and on this occasion he went in the service of the Dutch. In April, 1609, he sailed on a little yacht, the Half-Moon, with a crew of twenty men, and he passed Greenland and the fisheries of Newfoundland, Maine, Cape Cod, and came to Virginia. But he knew that this was too far south; so once more he turned northward, observing the shore closely, in hope to find the opening that led straight to China. He came to Delaware Bay, but soon discovered that this was not the great passageway. Again he hurried northward, and on the second of September sighted land. An account of his discovery of the Hudson was written as follows by one of his comrades.

THE DISCOVERY OF THE HUDSON RIVER

(From The Third Voyage of Master Henry Hudson.)

By ROBERT JUET, of Limehouse.

Indian Mother and Pappoose.

THE *first* of September (1609), faire weather, the wind variable betweene east and south; we steered away north north-west. At noone we found our height to bee 39 degrees, 3 minutes. Wee had soundings thirtie, twentie-seven, twentie-foure, and twentie-two fathomes, as wee went to the northward. At sixe of the clocke wee had one and twentie fathomes. And all the third watch, till twelve of the clocke at mid-night, we had soundings one and twentie, two and twentie, eighteene, two and twentie, one and twentie, eighteene, and two and twentie fathoms, and went sixe leagues neere hand north north-west.

The *second*, in the morning, close weather, the winde at south in the morning; from twelve untill two of the clocke we steered north north-west, and had sounding one and twentie fathoms; and in running one glasse we had but sixteene fathoms, then seventeene, and so

shoalder and shoalder untill it came to twelve fathoms. We saw a great fire, but could not see the land; then we came to ten fathoms, whereupon we brought our tackes aboord, and stood to the eastward east south-east, foure glasses. Then the sunne arose, and wee steered away north againe, and saw the land from the west by north to the north-west by north, all like broken islands, and our soundings were eleven and ten fathoms. Then wee looft in for the shoare, and faire by the shoare we had seven fathoms. The course along the land we found to be north-east by north. From the land which we had first sight of, untill we came to a great lake of water, as wee could judge it to bee, being drowned land, which made it to rise like islands, which was in length ten leagues. The mouth of that land hath many shoalds, and the sea breaketh on them as it is cast out of the mouth of it. And from that lake or bay the land lyeth north by east, and wee had a great streame out of the bay; and from thence our sounding was ten fathoms two leagues from the land. At five of the clocke we anchored, being little winde, and rode in eight fathoms water; the night was faire. This night I found the land to hail the compasse 8 degrees. For to the northward off us we saw high hils. For the day before we found not above 2 degrees of variation. This is a very good land to fall with, and a pleasant land to see.

The *third*, the morning mystie, until ten of the clocke; then it cleered, and the wind came to the south south-east, so wee weighed and stood to the northward. The land is very pleasant and high, and bold to fall withall. At three of the clock in the after-noone,

wee came to three great rivers. So we stood along to the northermost, thinking to have gone into it, but we found it to have a very shoald barre before it, for we had but ten foot water. Then we cast about to the southward, and found two fathoms, three fathoms, and three and a quarter, till we came to the souther side of them; then we had five and sixe fathoms, and anchored. So wee sent in our boate to sound, and they found no lesse water than foure, five, sixe, and seven fathoms, and returned in an houre and a halfe. So wee weighed and went in, and rode in five fathoms, oze ground, and saw many salmons, and mullets, and rayes, very great. The height is 40 degrees, 30 minutes.

The *fourth*, in the morning, as soone as the day was light, wee saw that it was good riding farther up. So we sent our boate to sound, and found that it was a very good harbour, and four and five fathomes, two cables length from the shoare. Then we weighed and went in with our ship. Then our boate went on land with our net to fish, and caught ten great mullets, of a foote and a halfe long a peece, and a ray as great as foure men could hale into the ship. So wee trimmed our boate and rode still all day. At night the wind blew hard at the north-west, and our anchor came home, and wee drove on shoare, but tooke no hurt, thanked bee God, for the ground is soft sand and oze. This day the people of the countrey came aboord of us, seeming very glad of our comming, and brought greene tobacco, and gave us of it for knives and beads. They goe in deere skins loose, well dressed. They have yellow copper. They desire cloathes, and are very civill. They have great store of maize, or Indian

wheate, whereof they make good bread. The countrey is full of great and tall oake.

The *fifth*, in the morning, as soone as the day was light, the wind ceased and the flood came. So we heaved off our ship againe into five fathoms water, and sent our boate to sound the bay, and we found that there was three fathoms hard by the souther shore. Our men went on land there, and saw great store of men, women, and children, who gave them tobacco at their coming on land. So they went up into the woods, and saw great store of very goodly oakes and some currants. For one of them came aboord and brought some dryed, and gave me some, which were sweet and good. This day many of the people came aboord, some in mantles of feathers, and some in skinnes of divers sorts of good furres. Some women also came to us with hempe. They had red copper tabacco pipes, and other things of copper they did weare about their neckes. At night they went on land againe, so wee rode very quiet, but durst not trust them.

The *sixth*, in the morning, was faire weather, and our master sent John Colman, with foure other men in our boate, over to the north-side to sound the other river, being foure leagues from us. They found by the way shoald water, two fathoms; but at the north of the river eighteen, and twentie fathoms, and very good riding for ships; and a narrow river to the westward, betweene two ilands. The lands, they told us, were as pleasant with grasse and flowers and goodly trees as ever they had seene, and very sweet smells came from them. So they went in two leagues and saw an open

sea, and returned; and as they came backe, they were set upon by two canoes, the one having twelve, the other fourteene men. The night came on, and it began to rayne, so that their match went out; and they had one man slaine in the fight, which was an Englishman, named John Colman, with an arrow shot into his throat, and two more hurt. It grew so darke that they could not find the ship that night, but labored to and fro on their oares. They had so great a streame, that their grapnell would not hold them.

The *seventh*, was faire, and by ten of the clocke they returned aboord the ship, and brought our dead man with them, whom we carried on land and buryed, and named the point after his name, Colmans Point. Then we hoysed in our boate, and raised her side with waste boords for defence of our men. So we rode still all night, having good regard to our watch.

The *eight*, was very faire weather, wee rode still very quietly. The people came aboord us, and brought tabacco and Indian wheat to exchange for knives and beades, and offered us no violence. So we fitting up our boate did marke them, to see if they would make any shew of the death of our man; which they did not.

The *ninth*, faire weather. In the morning, two great canoes came aboord full of men; the one with their bowes and arrowes, and the other in shew of buying of knives to betray us; but we perceived their intent. Wee tooke two of them to have kept them, and put red coates on them, and would not suffer the other to come neere us. So they went on land, and two other came aboord in a canoe; we tooke the one and let the other goe; but hee which wee had taken, got up and leapt

over-boord. Then we weighed and went off into the channell of the river, and anchored there all night.

The *tenth*, faire weather, we rode still till twelve of the clocke. Then we weighed and went over, and found it shoald all the middle of the river, for wee could finde but two fathoms and a halfe and three fathomes for the space of a league; then wee came to three fathomes and foure fathomes, and so to seven fathomes, and anchored, and rode all night in soft ozie ground. The banke is sand.

The *eleventh* was faire and very hot weather. At one of the clocke in the after-noone wee weighed and went into the river, the wind at south south-west, little winde. Our soundings were seven, sixe, five, sixe, seven, eight, nine, ten, twelve, thirteene, and fourteene fathomes. Then it shoalded againe, and came to five fathomes. Then wee anchored, and saw that it was a very good harbour for all windes, and rode all night. The people of the country came aboord of us, making shew of love, and gave us tabacco and Indian wheat, and departed for that night; but we durst not trust them.

The *twelfth*, very faire and hot. In the after-noone, at two of the clocke, wee weighed, the winde being variable betweene the north and the north-west. So we turned into the river two leagues and anchored. This morning, at our first rode in the river, there came eight and twentie canoes full of men, women and children to betray us; but we saw their intent, and suffered none of them to come aboord of us. At twelve of the clocke they departed. They brought with them oysters and beanes, whereof wee bought some. They have great

tabacco pipes of yellow copper, and pots of earth to dresse their meate in. It floweth south-east by south within.

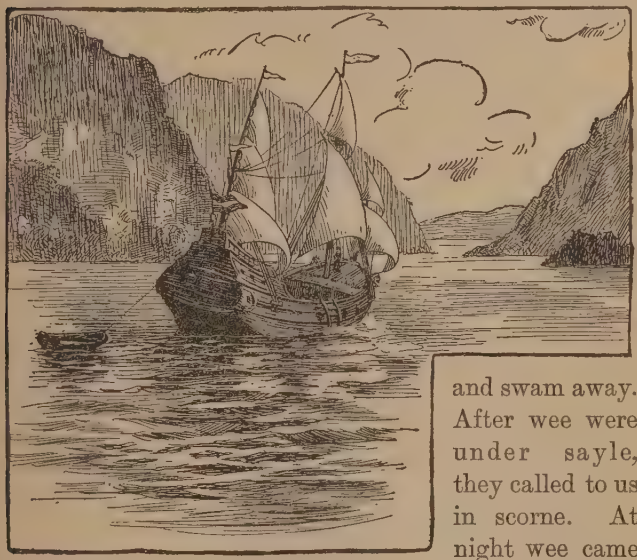
The *thirteenth*, faire weather, the wind northerly. At seven of the clocke in the morning, as the floud came we weighed, and turned foure miles into the river. The tide being done wee anchored. Then there came foure canoes aboord; but we suffered none of them to come into our ship. They brought great store of very good oysters aboord, which we bought for trifles.

In the night I set the variation of the compasse, and found it to be 13 degrees. In the after-noone we weighed, and turned in with the floud, two leagues and a halfe further, and anchored all night; and had five fathoms soft ozie ground; and an high point of land, which shewed out to us, bearing north by east five leagues off us.

The *fourteenth*, in the morning, being very faire weather, the wind south-east, we sayled up the river twelve leagues, and had five fathoms, and five fathoms and a quarter lesse; and came to a streight betweene two points, and had eight, nine, and ten fathoms; and it trended north-east by north, one league; and wee had twelve, thirteene, and fourteene fathomes. The river is a mile broad; there is very high land on both sides. Then we went up north-west, a league and an halfe deepe water. Then north-east by north, five miles; then north-west by north, two leagues, and anchored. The land grew very high and mountainous. The river is full of fish.

The *fifteenth*, in the morning, was misty, untill the sunne arose: then it cleered. So wee weighed with

the wind at south, and ran up into the river twentie leagues, passing by high mountaines. Wee had a very good depth, as sixe, seven, eight, nine, ten, twelve, and thirteene, fathomes, and great store of salmons in the river. This morning our two savages got out of a port



The Half Moon on the Hudson.

and swam away. After wee were under sayle, they called to us in scorne. At night wee came to other mountaines, which lie from the rivers side. There wee found very loving people, and very old men: where wee were well used. Our boat went to fish, and caught great store of very good fish.

The *sixteenth*, faire and very hot weather. In the morning our boate went againe to fishing, but could catch but few, by reason their canoes had beene there all night. This morning the people came aboord, and

brought us eares of Indian corne, and pompions, and tabacco: which wee bought for trifles. Wee rode still all day, and filled fresh water; at night wee weighed and went two leagues higher, and had shoald water: so wee anchored till day.

The *seventeenth*, faire sun-shining weather, and very hot. In the morning, as soone as the sun was up, we set sayle, and ran up sixe leagues higher, and found shoals in the middle of the channell, and small ilands, but seven fathoms water on both sides. Toward night we borrowed so neere the shoare, that we grounded: so we layed out our small anchor, and heaved off againe. Then we borrowed on the banke in the channell, and came aground againe; while the floud ran we heaved off againe, and anchored all night.

The *eighteenth*, in the morning, was faire weather, and we rode still. In the after-noone our masters mate went on land with an old savage, a governor of the countrey; who carried him to his house, and made him good cheere.

The *nineteenth*, was faire and hot weather: at the floud, being neere eleven of the clocke, wee weighed, and ran nigher up two leagues above the shoals, and had no lesse water than five fathomes; wee anchored, and rode in eight fathomes. The people of the countrie came flocking aboord, and brought us grapes and pompions, which wee bought for trifles. And many brought us bevers skinnes and otters skinnes, which wee bought for beades, knives, and hatchets. So we rode there all night.

The *twentieth*, in the morning, was faire weather. Our masters mate with foure men more went up with

our boat to sound the river, and found two leagues above us but two fathomes of water, and the channell very narrow; and above that place, seven or eight fathomes. Toward night they returned: and we rode still all night.

The *one and twentieth* was faire weather, and the wind all southerly: we determined yet once more to go farther up into the river, to trie what depth and breadth it did beare; but much people resorted aboord, so wee went not this day. Our carpenter went on land, and made a fore-yard. And our master and his mate determined to trie some of the chiefe men of the countrey, whether they had any treacherie in them. So they tooke them downe into the cabin, and gave them so much wine and *aqua vitae*, that they were all merrie: and one of them had his wife with them, which sate so modestly, as any of our countrey women would doe in a strange place. In the ende one of them was drunke, which had beene aboord of our ship all the time that we had beene there: and that was strange to them; for they could not tell how to take it. The canoes and folke went all on shoare: but some of them came again, and brought stropes of beades: some had sixe, seven, eight, nine, ten; and gave him. So he slept all night quietly.

The *two and twentieth* was faire weather; in the morning our masters mate and foure more of the companie went up with our boat to sound the river higher up. The people of the countrey came not aboord till noone: but when they came, and saw the savages well, they were glad. So at three of the clocke in the afternoone they came aboord, and brought tobacco, and more beades, and gave them to our master, and made an

oration, and shewed him all the countrey round about. Then they sent one of their companie on land, who presently returned, and brought a great platter full of venison dressed by themselves; and they caused him to eate with them: then they made him reverence and departed, all save the old man that lay aboord. This night, at ten of the clocke, our boat returned in a showre of raine from sounding of the river; and found it to bee at an end for shipping to goe in. For they had beene up eight or nine leagues, and found but seven foot water, and unconstant soundings.

The *three and twentieth*, faire weather. At twelve of the clocke wee weighed, and went downe two leagues to a shoald that had two channels, one on the one side, and another on the other, and had little wind, whereby the tide layed us upon it. So there wee sate on ground the space of an houre till the floud came. Then wee had a little gale of wind at the west. So wee got our ship into deepe water, and rode all night very well.

The *foure and twentieth* was faire weather: the winde at the north-west, wee weighed, and went downe the river seven or eight leagues; and at halfe ebbe wee came on ground on a bank of oze in the middle of the river, and sate there till the floud. Then wee went on land, and gathered good store of chest-nuts. At ten of the clocke wee came off into deepe water, and anchored.

The *five and twentieth* was faire weather, and the wind at south a stiffe gale. We rode still, and went on land to walke on the west side of the river, and found good ground for corne and other garden herbs, with

great store of goodly oakes, and walnut-trees, and chestnut trees, ewe trees, and trees of sweet wood in great abundance, and great store of slate for houses, and other good stones.

The *sixe and twentieth* was faire weather, and the wind at south a stiffe gale; wee rode still. In the morning our carpenter went on land, with our masters mate and foure more of our companie, to cut wood. This morning, two canoes came up the river from the place where we first found loving people, and in one of them was the old man that had lyen aboord of us at the other place. He brought another old man with him, which brought more stropes of beades and gave them to our master, and shewed him all the countrey there about as though it were at his command. So he made the two old men dine with him, and the old man's wife: for they brought two old women, and two young maidens of the age of sixteene or seventeene yeares with them, who behaved themselves very modestly. Our masters gave one of the old men a knife, and they gave him and us tabacco. And at one of the clocke they departed downe the river, making signes that wee should come downe to them; for wee were within two leagues of the place where they dwelt.

The *seven and twentieth*, in the morning, was faire weather, but much wind at the north; we weighed and set our fore topsayle, and our ship would not flot, but ran on the ozie banke at halfe ebbe. Wee layed out anchor to heave her off, but could not. So wee sate from halfe ebbe to halfe floud: then we set our fore-sayle and main top-sail, and got downe sixe leagues. The old man came aboord, and would have had us

anchor, and goe on land to eate with him: but the wind being faire, we would not yeeld to his request; so hee left us, being very sorrowfull for our departure. At five of the clocke in the afternoone, the wind came to the south south-west. So wee made a boord or two, and anchored in fourteene fathomes water. Then our boat went on shoare to fish right against the ship. Our masters mate and boatswaine, and three more of the companie, went on land to fish, but could not find a good place. They tooke foure or five and twentie mullets, breames, bases, and barbils; and returned in an houre. We rode still all night.

The *eight and twentieth*, being faire weather, as soone as the day was light, wee weighed at halfe ebbe, and turned downe two leagues belowe water; for the streame doth runne the last quarter ebbe: then we anchored till high water. At three of the clocke in the after-noone we weighed, and turned down three leagues, until it was darke: then we anchored.

The *nine and twentieth* was drie close weather; the wind at south, and south and by west; we weighed early in the morning, and turned downe three leagues by a lowe water, and anchored at the lower end of the long reach; for it is sixe leagues long. Then there came certaine Indians in a canoe to us, but would not come aboord. After dinner there came the canoe with other men, whereoff three came aboord us. They brought Indian wheat, which we bought for trifles. At three of the clocke in the after-noone wee weighed, as soon as the ebbe came, and turned downe to the edge of the mountaines, or the northernmost of the mountaines, and anchored: because the high land hath many

points, and a narrow channell, and hath manie eddie winds. So we rode quietly all night in seven fathoms water.

The *thirtieth* was faire weather, and the wind at south-east, a stiffe gale betweene the mountaynes. We rode still the afternoone. The people of the countrey came aboord us and brought some small skinnes with them, which we bought for knives and trifles. This is a very pleasant place to build a towne on. The road is very neere, and very good for all windes, save an east north-east wind. The mountaynes look as if some metall or minerall were in them. For the trees that grow on them were all blasted, and some of them barren, with few or no trees on them. The people brought a stone aboord like to an emery (a stone used by glasiers to cut glasse), it would cut iron or steele: yet being bruised small, and water put to it, it made a color like blacke lead glistering: it is also good for painters colors. At three of the clocke they departed, and we rode still all night.

The *first of October*, faire weather, the wind variable betweene the west and the north. In the morning we weighed at seven of the clocke with the ebbe, and got downe below the mountaynes, which was seven leagues. Then it fell calme and the floud was come, and wee anchored at twelve of the clocke. The people of the mountaynes came aboord us, wondering at our ship and weapons. We bought some small skinnes of them for trifles. This afternoone, one canoe kept hanging under our sterne with one man in it, which we could not keepe from thence, who got up by our rudder to the cabin window, and stole out my pillow, and two

shirts, and two bandeleeres. Our masters mate shot at him, and stroke him on the brest, and killed him. Whereupon all the rest fled away, some in their canoes, and so leapt out of them into the water. We manned our boat, and got our things againe. Then one of them that swamme got hold of our boat, thinking to overthrow it. But our cooke tooke a sword, and cut off one of his hands, and he was drowned. By this time the ebbe was come, and we weighed and got downe two leagues; by that time it was darke. So we anchored in foure fathomes water, and rode well.

The *second*, faire weather. At break of day wee weighed, the winde being at north-west, and got downe seven leagues; then the floud was come strong, so we anchored. Then came one of the savages that swamme away from us at our going up the river with many other, thinking to betray us. But wee perceived their intent, and suffered none of them to enter our ship. Whereupon two canoes full of men, with their bowes and arrowes shot at us after our sterne: in recompence whereof we discharged sixe muskets, and killed two or three of them. Then above an hundred of them came to a point of land to shoot at us. There I shot a falcon at them, and killed two of them: whereupon the rest fled into the woods. Yet they manned off another canoe with nine or ten men, which came to meet us. So I shot at it also a falcon, and shot it through, and killed one of them. Then our men with their muskets killed three or foure more of them. So they went their way; within a while after wee got downe two leagues beyond that place, and anchored in a bay, cleere from all danger of them on the other side of the river, where

we saw a very good piece of ground: and hard by it there was a cliffe, that looked of the color of a white greene, as though it were either copper or silver myne: and I thinke it to be one of them, by the trees that grow upon it. For they be all burned, and the other places are greene as grasse; it is on that side of the river that is called Manna-hata. There we saw no people to trouble us: and rode quietly all night; but had much wind and raine. . . .

We continued our course toward England, without seeing any land by the way, all the rest of this moneth of *October:* and on the *seventh day of November, stillo novo,* being Saturday, by the grace of God we safely arrived in the range of Dartmouth, in Devonshire, in the yeere 1609.

Treaty Belt of Wampum.

DISCOVERY OF THE MISSISSIPPI

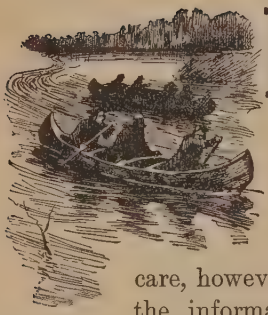
THE MISSISSIPPI EXPLORERS

Although a Spaniard, De Soto, was the first white man to see the Mississippi, it remained for the French, a hundred years later, to explore the Great Father of Waters, and claim the vast regions on its borders for the King of France. In 1673 the Governor of Canada sent out a party which followed the windings of the river to within three days' journey of the mouth. Louis Joliet, once a priest, then fur-trader and explorer, was the captain of the expedition, and associated with him was the good missionary, Father Jacques Marquette. Joliet was a simple merchant, intelligent, enterprising, hardy and courageous. Though he had renounced the priesthood he retained a strong liking for the Jesuits. Father Marquette, of an old and honorable French family, was at the time thirty-five years old. He had joined the Jesuits at the age of seventeen, and in 1666 was sent to the wilds of Canada as a missionary to the Indians. In two years he learned to speak with ease six Indian languages. He was a faithful, earnest worker, and of deep piety. At Michillimackinack, on the strait between lakes Huron and Michigan, Joliet found this good man in his little palisaded mission of St. Ignatius, where he had been teaching the Indians for two years. He was now eager to venture among "the new nations towards the South Sea who were still unknown" to him, "and to teach them of our great God" whom they had not hitherto known. The following account of their remarkable journey is from Father Marquette's own journal.

DISCOVERY OF THE MISSISSIPPI

By FATHER JAMES MARQUETTE.

(Translated by J. B. D. De Bow.)



I EMBARKED with M. Joliet, who had been chosen to conduct this enterprise, on the 13th May, 1673, with five other Frenchmen, in two bark canoes. We laid in some Indian corn and smoked beef for our voyage. We first took care, however, to draw from the Indians all the information we could, concerning the countries through which we designed to travel, and drew up a map, on which we marked down the rivers, nations, and points of the compass to guide us in our journey. The first nation we came to was called the Folles-Avoines, or the *nation of wild oats.* I entered their river to visit them, as I had preached among them some years before. The wild oats, from which they derive their name, grow spontaneously in their country. . . .

I acquainted them with my design of discovering other nations, to preach to them the mysteries of our holy religion, at which they were much surprised, and

said all they could to dissuade me from it. They told me I would meet Indians who spare no strangers, and whom they kill without any provocation or mercy; that the war they have one with the other would expose me to be taken by their warriors, as they are constantly on the lookout to surprise their enemies. That the Great River was exceedingly dangerous, and full of frightful monsters who devoured men and canoes together, and that the heat was so great that it would positively cause our death. I thanked them for their kind advice, but told them I would not follow it, as the salvation of a great many souls was concerned in our undertaking, for whom I should be glad to lose my life. I added that I defied their monsters, and their information would oblige us to keep more upon our guard to avoid a surprise. And having prayed with them, and given them some instructions, we set out for the Bay of Puan [Green Bay], where our missionaries had been successful converting them. . . .

This bay [Green Bay] is about thirty leagues long, and eight broad in the greatest breadth; for it grows narrower and forms a cone at the extremity. It has tides that flow and ebb as regular as the sea. We left this bay to go into a river [Fox River] that discharges itself therein, and found its mouth very broad and deep. It flows very gently, but after we had advanced some leagues into it we found it difficult to navigate, on account of the rocks and the currents; we fortunately overcame all these difficulties. It abounds in bustards, ducks, and other birds which are attracted there by the wild oats, of which they are very fond. We next came to a village of the Maskoutens, or nation of fire. . . .

The next day, being the 10th of June, the two guides [Miamies] embarked with us in sight of all the village, who were astonished at our attempting so dangerous an expedition. We were informed that at three leagues from the Maskoutens, we should find a river which runs into the Mississippi, and that we were to go to the west-south-west to find it, but there were so many marshes and lakes, that if it had not been for our guides we could not have found it. The river upon which we rowed and had to carry our canoes from one to the other, looked more like a corn-field than a river, insomuch that we could hardly find its channel. As our guides had been frequently at this portage, they knew the way, and helped us to carry our canoes overland into the other river, distant about two miles and a half; from whence they returned home, leaving us in an unknown country, having nothing to rely upon but Divine Providence. We now left the waters which extend to Quebec, about five or six hundred leagues, to take those which would lead us hereafter into strange lands.

Before embarking we all offered up prayers, which we continued to do every morning, and after having encouraged each other, we got into our canoes. The river upon which we embarked is called Mesconsin [Wisconsin]; the river is very wide, but the sand bars make it very difficult to navigate, which is increased by numerous islands covered with grape vines. The country through which it flows is beautiful; the groves are so dispersed in the prairies that it makes a noble prospect; and the fruit of the trees shows a fertile soil. These groves are full of walnut, oak, and other

trees unknown to us in Europe. We saw neither game nor fish, but roebuck and buffaloes in great numbers. After having navigated thirty leagues we discovered some iron mines, and one of our company who had seen such mines before, said these were very rich in ore. They are covered with about three feet of soil, and situate near a chain of rocks, whose base is covered with fine timber. After having rowed ten leagues further, making forty leagues from the place where we embarked, we came into the Mississippi on the 17th of June [1673].

The mouth of the Mesconsin [Wisconsin] is in about 42½° N. lat. Behold us, then, upon this celebrated river, whose singularities I have attentively studied. The Mississippi takes its rise in several lakes in the North. Its channel is very narrow at the mouth of the Mesconsin, and runs south until it is affected by very high hills. Its current is slow, because of its depth. In sounding we found nineteen fathoms of water. A little further on it widens nearly three-quarters of a league, and the width continues to be more equal. We slowly followed its course to the south and south-east to the 42° N. lat. Here we perceived the country change its appearance. There were scarcely any more woods or mountains. The islands are covered with fine trees, but we could not see any more roebucks, buffaloes, bustards, and swans. We met from time to time monstrous fish, which struck so violently against our canoes, that at first we took them to be large trees, which threatened to upset us. We saw also a hideous monster; his head was like that of a tiger, his nose was sharp, and somewhat re-

sembled a wildcat; his beard was long; his ears stood upright; the color of his head was gray; and his neck was black. He looked upon us for some time, but as we came near him our oars frightened him away. When we threw our nets into the water we caught an abundance of sturgeons, and another kind of fish like our trout, except that the eyes and nose are much smaller, and they have near the nose a bone like a woman's busk, three inches broad and a foot and a half long, the end of which is flat and broad, and when it leaps out of the water the weight of it throws it on its back.

Having descended the river as far as 41° 28′, we found that turkeys took the place of game, and the Pisikioes that of other animals. We called the Pisikioes wild buffaloes, because they very much resemble our domestic oxen; they are not so long, but twice as large. We shot one of them, and it was as much as thirteen men could do to drag him from the place where he fell. . . .

We continued to descend the river, not knowing where we were going, and having made an hundred leagues without seeing anything but wild beasts and birds, and being on our guard we landed at night to make our fire and prepare our repast, and then left the shore to anchor in the river, while one of us watched by turns to prevent a surprise. We went south and south-west until we found ourselves in about the latitude of 40° and some minutes, having rowed more than sixty leagues since we entered the river.

. . . We took leave of our guides about the end of June, and embarked in presence of all the village, who

admired our birch canoes, as they had never before seen anything like them. We descended the river, looking for another called Pekitanoni [Missouri], which runs from the north-west into the Mississippi, of which I will speak more hereafter. . . .

As we were descending the river we saw high rocks with hideous monsters painted on them, and upon which the bravest Indians dare not look. They are as large as a calf, with head and horns like a goat; their eyes red; beard like a tiger's; and a face like a man's. Their tails are so long that they pass over their heads and between their fore legs, under their belly, and ending like a fish's tail. They are painted red, green, and black. They are so well drawn that I cannot believe they were drawn by the Indians. And for what purpose they were made seems to me a great mystery. As we fell down the river, and while we were discoursing upon these monsters, we heard a great rushing and bubbling of waters, and small islands of floating trees coming from the mouth of the Pekitanoni [Missouri], with such rapidity that we could not trust ourselves to go near it. The water of this river is so muddy that we could not drink it. It so discolors the Mississippi as to make the navigation of it dangerous. This river comes from the north-west, and empties into the Mississippi, and on its banks are situated a number of Indian villages. We judged by the compass, that the Mississippi discharged itself into the Gulf of Mexico. It would, however, have been more agreeable if it had discharged itself into the South Sea or Gulf of California. . . .

Having satisfied ourselves that the Gulf of Mexico

was in latitude 31° 40′, and that we could reach it in three or four days' journey from the Akansea [Arkansas River], and that the Mississippi discharged itself into it, and not to the eastward of the Cape of Florida, nor into the California Sea, we resolved to return home. We considered that the advantage of our travels would be altogether lost to our nation if we fell into the hands of the Spaniards, from whom we could expect no other treatment than death or slavery; besides, we saw that we were not prepared to resist the Indians, the allies of the Europeans, who continually infested the lower part of this river; we therefore came to the conclusion to return, and make a report to those who had sent us. So that having rested another day, we left the village of the Akansea, on the seventeenth of July, 1673, having followed the Mississippi from the latitude 42° to 34°, and preached the Gospel to the utmost of my power, to the nations we visited. We then ascended the Mississippi with great difficulty against the current, and left it in the middle of 38° north, to enter another river [Illinois], which took us to the lake of the Illinois [Michigan], which is a much shorter way than through the River Mesconsin [Wisconsin], by which we entered the Mississippi. . . .

Floating Islands in the Mississippi.

NIAGARA AND THE MISSISSIPPI

(From A New Discovery of a Vast Country in America.)

By FATHER L. HENNEPIN.

BETWIXT the Lake Ontario and Erie, there is a vast and prodigious Cadence of Water which falls down after a surprizing and astonishing manner, insomuch that the Universe does not afford its Parallel. 'Tis true, Italy and Swedeland boast of some such Things; but we may well say they are but sorry Patterns, when compar'd to this of which we now speak. At the foot of this horrible Precipice, we meet with the River Niagara, which is not above a quarter of a league broad, but is wonderfully deep in some places. It is so rapid above this Descent, that it violently hurries down the wild Beasts while endeavouring to pass it to feed on the other side, they not being able to withstand the force of its Current, which inevitably casts them headlong above Six hundred foot high.

This wonderful Downfall, is compounded of two great Cross-streams of water, and two Falls, with an Isle sloping along the middle of it. The Waters which fall

from this horrible Precipice, do foam and boyl after the most hideous manner imaginable, making an outrageous Noise, more terrible than that of Thunder; for when the Wind blows out of the South, their dismal roaring may be heard more than Fifteen Leagues off.

The River Niagara having thrown it self down this incredible Precipice, continues its impetuous course for two Leagues together, to the great Rock above-mention'd, with an inexpressible rapidity: But having past that, its impetuosity relents, gliding along more gently for other two Leagues, till it arrive at the Lake Ontario or Frontenac.

Niagara Falls.

Any Bark or greater Vessel may pass from the Fort to the foot of this huge Rock above-mention'd. This Rock lies to the Westward, and is cut off from the Land by the River Niagara, about two Leagues farther down than the great Fall; for which two Leagues the People are oblig'd to transport their Goods over-land; but the way is very good, and the trees are but few, chiefly Firrs and Oaks.

From the great Fall unto this Rock which is to the West of the River, the two Brinks of it are so prodigious high, that it would make one tremble to look steadily upon the Water, rolling along with a rapidity

not to be imagin'd. Were it not for this vast Cataract, which interrupts Navigation, they might sail with Barks or greater Vessels more than Four hundred and fifty Leagues crossing the Lake of Hurons, and reaching even to the farther end of the Lake Illinois; which two Lakes we may easily say are little Seas of fresh Water.

Sieur de la Salle had a design to have built a Fort at the mouth of the River Niagara; and might easily have compass'd it, had he known how to keep himself within bounds, and to have confin'd himself there for one Year. His design was to curb and keep under the Iroquois, and especially the Tsonnontouans, who are the most numerous People, and the most given to War of all that Nation. In fine, such a Fort as this might easily have interrupted the Commerce betwixt these People and the English and Dutch in New-York. Their custom is to carry to New York the Skins of Elks, Beavers, and several sorts of Beasts, which they hunt and seek after some 2 or 300 Leagues from their own home. Now they being oblig'd to pass and repass near to this mouth of the River Niagara, we might easily stop them by fair means in time of Peace, or by open force in time of War; and thus oblige them to turn their Commerce upon Canada.

But having remark'd that the Iroquois were push'd on to stop the execution of this Design, not so much by the English and Dutch, as by the Inhabitants of Canada, who for a great part endeavour'd by all means to traverse this our Discovery; they contented themselves to build a House at the mouth of the River to the Eastward, where the place was naturally fortifi'd.

To one side of this House there is a very good Haven, where Ships may safely ride; nay, by help of a Capstane, they may easily be hall'd upon Land. Besides, at this Place they take an infinite quantity of white Fish, Sturgeons, and all other sorts of Fishes, which are incomparably good and sweet; insomuch that in the proper Season of Fishing, they might furnish the greatest city in Europe with plenty of Fish.

The Iroquois give to this Lake the Name of Erie Tejocharontiong, which extends itself from East to West perhaps a hundred and forty Leagues in length. But no European has ever been over it all; only I and those who accompany'd me in this Discovery, have view'd the greater part of it, with a Vessel of Sixty Tun burden, which we caus'd to be made on purpose, about two Leagues above the fore-mention'd Fall of Niagara, as I shall have occasion to observe more largely hereafter.

This Lake Erie, or Tejocharontiong, encloses on its Southern Bank a Tract of Land as Large as the Kingdom of France. It divides it self at a certain place into two Channels, because of a great Island enclos'd betwixt them: Thus continuing its course for fourteen Leagues, it falls into the Lake Ontario, or Frontenac, acquiring the name of the River Niagara.

Betwixt the Lake Erie and Huron, there is almost such another Streight thirty Leagues long, which is of an equal breadth almost all over, except in the middle, that it enlarges it self by help of another Lake far less than any of the rest, which is of a circular Figure about six Leagues diameter, according to the Observation of our Pilot. We gave it the Name of Lake St. Claire,

tho' the Iroquois, who pass over it frequently when they are upon Warlike Designs, call it Otsi Keta. The Country which borders upon this most agreeable and charming Streight, is a pleasant Champain Country, as I shall relate afterwards. All these different Rivers, which are cloath'd with so many different Denominations, are nothing else but a continuation of the great River St. Laurence; and this Lake St. Claire is form'd by the same.

The Lake Huron was so call'd by the People of Canada, because the Savage Hurons, who inhabited the adjacent Country, us'd to have their Hair so burn'd, that their Head resembled the Head of a Wild Boar. The Savages themselves call'd it the Lake Karegnondy. Heretofore the Hurons Liv'd near this Lake, but they have been in a great measure destroy'd by the Iroquois.

The circumference of this Lake may be reckon'd to be about Seven hundred Leagues, and its length two hundred; but the breadth is very unequal. To the West of it near its mouth it surrounds several great Islands, and is navigable all over. Betwixt this Lake and that of the Illinois, we meet with another Streight which discharges it self into this Lake, being about Three Leagues long, and one broad, its course running West-North-West.

There is yet another Streight or narrow Canal towards the upper Lake (that runs into this of Huron) about Five Leagues broad, and Fifteen Leagues long, which is interrupted by several Islands, and becomes narrower by degrees, 'till it comes at the Fall of St. Mary. This Fall is a Precipice full of Rocks, over which the Water of the upper Lake, which flows thither

in great abundance, casts it self with a most violent impetuosity: Notwithstanding which, a Canow may go up it on one side, provided the People in it row strongly. But the safer way is to carry the Canow over-land for so little space, together with the Commodities that those of Canada carry thither to exchange with the Savages that live to the Northward of the upper Lake. This Fall is call'd the Fall of St. Mary Missilimakinak. It lies by the mouth of the upper Lake, and discharges it self partly into the mouth of the Lake Illinois towards the great Bay of Puants; all which, shall afterwards be more fully discours'd when I come to relate our return from Issati.

The Lake Illinois, in the Natives Language, signifies the Lake of Men; for the word Illinois signifies a Man of full Age in the vigour of his Strength. It lies to the West of the Lake Huron toward the North, and is about a Hundred and twenty, or a hundred and thirty Leagues in length, and Forty in breadth, being in circuit about Four hundred Leagues. It is call'd by the Miamis, Mischigonong, that is, The Great Lake. It extends it self from North to South, and falls into the Southern-side of the Lake Huron; and is distant from the upper Lake about Fifteen or Sixteen Leagues, its Source lies near a River which the Iroquois call Hohio, where the River Miamis discharges it self into the same Lake.

It is navigable all over, and has to the Westward a great Bay call'd the Bay of Puans, by reason that the Savages who now inhabit the Land surrounding this Bay, had deserted their former Habitation, because of some stinking (in French Puans) Waters towards the Sea that annoy'd them.

This Superiour Lake runs from East to West, and may have more than a Hundred and fifty Leagues in length, Sixty in breadth, and Five hundred in circuit. We never went quite over it, as we did over all the others I've hitherto mention'd; but we sounded some of its greatest Depths, and it resembles the Ocean, having neither Bottom nor Banks.

I shall not here stay to mention the infinite numbers of Rivers that discharge themselves into this prodigious Lake, which together with that of Illinois, and the Rivers that are swallow'd in them, make up the Source of that great River St. Laurence, which runs into the Ocean at the Island of Assumption towards New-found-land. We travell'd upon this River about Six hundred Leagues from its mouth to its Source.

I've already observ'd that all these Lakes may well be call'd Fresh-water Seas. They abound extreamly in White Fish greater than Carps, which are extraordinary good; nay, at Twenty or Thirty Water, there are Salmon-Trouts taken of Fifty or Sixty pound weight. It were easie to build on the sides of these great Lakes, an infinite number of considerable Towns, which might have Communication one with another by Navigation for Five hundred Leagues together, and by an inconceivable Commerce which would establish it self among 'em. And to be sure the Soil, if cultivated by Europeans, would prove very fertile. Those that can conceive the Largeness and Beauty of these Lakes, may easily understand, by the help of our Map, what course we steer'd in making the great Discovery hereafter mention'd. . . .

I left Koroa the next Day, April 5, with a design to

visit several Nations inhabiting the Coast of the Meschasipi, but my Men would never consent thereunto, telling me that they had no Business there, and they were oblig'd to make all the haste they could towards the North, to exchange their Commodities for Furrs. I told them that Publick Good was to be preferr'd to Private Interest; but I could not perswade them to any such thing; and they told me that every one ought to be free; that they were resolved to go towards the Source of the River, but that I might remain amongst those Nations, if I thought fit. In short, I found myself oblig'd to submit to their Will, tho' they had receiv'd Orders to obey my Direction. We arriv'd the 7th in the Habitation of the Taensas, who had already been inform'd of our return from the Sea, and were prepar'd to receive us, having for that end sent for their Allies inhabiting the inland Country to the Westward of the River. They us'd all possible endeavour to oblige us to remain with them, and offer'd us a great many things; but our Men would not stay one single Day; tho' I confess the Civility of that People, and the good Disposition I observ'd in them, would have stopp'd me amongst them, had I been provided with things necessary for the Function of my Ministry.

We parted the 8th, and the Taensas follow'd us several Leagues in their lightest Pyrogues, but were at last oblig'd to quit us, being not able to keep pace with our Canow. One of our Men shot three Wild-Ducks at once, which they admir'd above all things, it being impossible to do so with their Arrows. We gave them some Tobacco, and parted from them, our Men

rowing with all their Strength, to let them see we had kept company with them out of meer Civility.

The 9th we came to the Place where our Men had hidden their Commodities; but when my Men saw that the Savages had burnt the Trees which we had mark'd, they were so afraid, that they were near sounding away, and did not doubt that their Goods were lost. We went a-shoar; and while I was mending our Canow, they went to look for their Treasure, which they found in good condition. They were so transported with Joy, that Picard came immediately to tell me that all was well. In the meantime, the Akansas, having receiv'd advice of our return, came down in great numbers along the River to meet us; and lest they should see our Men taking again their Goods from under the Ground, I advanced to meet them with the Calumet of Peace, and stopt them to smoak, it being a sacred Law amongst them to smoak in such a Juncture; and whosoever would refuse, should run a danger of being murther'd by the Savages, who have an extreme Veneration for the Calumet.

Whilst I stopt them, my Men put their Commodities into their Canow, and came to take me into it. The Savages saw nothing of it, of which I was very glad; for tho' they were our own, perhaps they might claim part of them upon some Pretence or other. I made several signs upon the Sand, to make them apprehend what I thought; but with what success I don't know, for I could not understand a word of what they said, their Language having no affinity with those of their Neighbours I have convers'd withal, both since and after my Voyage to the Mouth of the Meschasipi.

I got into the Canow, and went by water to the Village of the Akansas, while they went by Land; but our Men row'd so fast, that they could hardly keep pace with us. One of them, who was a good Runner, arriv'd at the Village before us, and came to the Shoar with the Women and Children to receive us, which they did even with more Civility than they had express'd the first time. Our Men suspected that this was only to get our Commodities, which they admir'd; but they are certainly a good People, and instead of deserving the Name of a Barbarous Nation, as the Europeans call all the Natives of America, I think they have more Humanity than many Natives of Europe, who pretend to be very civil and affable to Strangers.

It would be needless to give here an exact account of the Feast and Dances that were made for our Entertainment, nor of the Melancholy they express'd upon our departure. I must own that I had much a-do to leave them, but my two Men would not give me leave to tarry a Day, seeing these Nations having had no Commerce with the Europeans, did not know the value of Beavers Skins or other Furrs, whereas they thought that the Savages inhabiting about the Source of the Meschasipi, might have been inform'd thereof by the Inhabitants of the Banks of the Superiour or Great Lake, which we found to be true, as we shall observe anon. We left the Akansas upon the 24th of April, having presented them with several little Toys, which they receiv'd with an extraordinary Joy; and during sixty Leagues, saw no Savage neither of the Nation of Chikacha or Messorite, which made us believe that they were gone a Hunting with their Families, or else fled

away for fear of the Savages of Tintonha, that is to say, inhabiting the Meadows, who are their irreconcileable Enemies.

This made our Voyage the more easie, for our Men landed several times to kill some Fowls and other Game, with which the Banks of the Meschasipi are plentifully stock'd; however, before we came to the Mouth of the River of the Illinois, we discover'd several Messorites, who came down all along the River; but as they had no Pyrogues with them, we cross'd to the other side; and to avoid any surprize during the Night, we made no Fire; and thereby the Savages could not discover whercabout we were; for doubtless they would have murther'd us, thinking we were their Enemies.

I had quite forgot to relate, that the Illinois had told us, that towards the Cape, which I have call'd in my Map St. Anthony, near the Nation of the Messorites, there were some Tritons, and other Sea-Monsters painted, which the boldest Men durst not look upon, there being some Inchantment in their face. I thought this was a Story; but when we came near the Place they had mention'd, we saw instead of these Monsters, a Horse and some other Beasts painted upon the Rock with red Colours by the Savages. The Illinois had told us likewise, that the Rock on which these dreadful Monsters stood was so steep that no Man could climb up to it; but had we not been afraid of the Savages more than of the Monsters, we had certainly got up to them. There is a common Tradition amongst that People, That a great number of Maimis were drown'd in that Place, being pursued by the Savages of Matsigamea; and since that time, the Savages going by the

Rock, use to smoak and offer Tobacco to those Beasts, to appease, as they say, the Manitou, that is, in the Language of the Algonquins and Accadians, an Evil Spirit, which the Iroquois call Otkon; but the Name is the only thing they know of them.

While I was at Quebec, I understand that M. Joliet had been upon the Meschasipi, and oblig'd to return without going down that River, because of the Monsters I have spoken of, who had frightened him, as also because he was afraid to be taken by the Spaniards; and having an Opportunity to know the Truth of that Story from M. Joliet himself, with whom I had often travell'd upon the River St. Laurence, I ask'd him whether he had been as far as the Akansas? That Gentleman answer'd me, That the Outtaouats had often spoke to him of those Monsters; but that he had never gone farther than the Hurons and Outtaouats, with whom he had remain'd to exchange our European Commodities with their Furrs. He added, That the Savages had told him, that it was not safe to go down the River, because of the Spaniards. But notwithstanding this Report, I have found no-where upon that River any Mark, as Crosses, and the like, that could persuade me that the Spaniards had been there; and the Savages inhabiting the Meschasipi would not have express'd such Admiration as they did when they saw us, if they had seen any Europeans before. I'll examine this Question more at large in my Second Volume. . . .

From thirty Leagues below Maroa, down to the Sea, the Banks of the Meschasipi are full of Reeds or Canes; but we observ'd about forty places, where one may

"I Got into the Canow, and Went by Water to the Village of the Akansas."

Land with great Facility. The River overflows its Banks now and then; but the Inundation is not very considerable, because of the little Hills which stop its Waters. The Country beyond those Hills is the finest that ever I saw, it being a Plain, whose Bounds I don't know, adorn'd now and then with some Hills and Eminences cover'd with fine Trees, making the rarest Prospect in the World. The Banks of the small Rivers flowing thro' the Plain, are planted with Trees, which seem to have been disposed into that curious Order by the Art of Men; and they are plentifully stock'd with Fish, as well as the Meschasipi. The Crocodiles are very dangerous upon this great River, as I have already observ'd; and they devour a Man if they can surprize him; but 'tis easie to avoid them, for they don't swim after Men, nor follow them a-shoar.

The Country affords all sorts of Game, as Turkey-Cocks, Turtle-Doves, and Wood-Pigeons; and abundance of wild-Oxen, wild-Goats, Stags, Beavers, Otters, Martins, and wild-Cats: But as we approach'd the Sea, we saw no Beavers. I design to give a particular Account of these Creatures in another place; in the mean time we shall take notice of two others, who are unknown in Europe.

I have already mention'd a little Animal, like a Musk'd-Rat, that M. la Salle kill'd as we came from Fort Miamis to the Illinois, which deserves a particular Description. It looks like a Rat as to the Shape of its Body, but it is as big as a Cat: His Skin looks Silver-like, with some fair black Hair, which makes the Colour the more admirable. His Tail is without any Hair, as big as the Finger, and about a Foot long,

wherewith he hangs himself to the Boughs of Trees. That Creature has under the Belly a kind of Sack, wherein they put their young ones when they are pursu'd; which is one of the most wonderful Things of the World, and a clear Demonstration of the Providence and Goodness of the Almighty, who takes so particular a Care of the meanest of his Creatures.

Opossum.

There is no fierce Beast in all that Country that dares attack Men; for the Mechibichi, the most terrible of all, and who devours all other Beasts whatsoever, runs away upon the Approach of a Savage. The Head of that Creature is very like that of the spotted Lynx, but somewhat bigger: his Body is long, and as tall as a wild-Goat, but his Legs are shorter; his Paws are like a Cat's-Foot; but the Claws are so long and strong, that no other Beast can resist them. When they have kill'd any Beast, they eat part of it, and carry the rest upon their Back, to hide it in the Woods; and I have been told that no other Beast dare meddle with it. Their Skin is much like that of a Lion, as well as their Tail; but their Head is much bigger.

The Savages gave us to understand that to the Westward of their Habitation, there are some Beasts who carry Men upon their Back, and shew'd us the

Hoof, and part of the Leg of one, which was certainly the Hoof of a Horse; and surely Horses must not be utterly unknown in the Northern America: for then how cou'd the Savages have drawn upon the Rock I have mention'd, the Figure of that Animal?

They have in that Country all sorts of Trees we have in Europe, and a great many other unknown to us. There are the finest Cedars in the World; and another sort of Tree, from which drops a most fragrant Gum, which in my Opinion exceeds our best Perfumes. The Cotton-Trees are of a prodigious height; the Savages make them hollow with Fire, to make their Pyrogues; and we have seen some of them all of a-piece, above an hundred Foot long. The Oak is so good, that I believe it exceeds ours for Building Ships. I have observ'd that Hemp grows naturally in that Country, and that they make Tar and Pitch toward the Sea-Coasts; and as I don't question but that there are some Iron-Mines, the Building of Men of War wou'd be very cheap in the River Meschasipi.

I took Notice in my Description of Louisiana, that there are vast Meadows, which need not to be grubb'd up, but are ready for the Plow and seed; and certainly the Soil must be very fruitful, since Beans grow naturally, without any Culture. Their Stalks subsist several Years, bearing Fruit in the proper Seasons: It is as big as one's Arm, and climbs up the highest Trees, just as Ivy does. The Peach-Trees are like ours, and so fruitful, that they wou'd break if they were not supported. Their Forests are full of Mulberry-Trees and Plum-Trees, whose Fruit is bemusk'd. They have also Plenty of Pomegranate-Trees and Chestnut-Trees:

And 'tis observable that all these Trees are cover'd with Vines, whose Grapes are very big and sweet.

They have three or four Crops of Indian-Corn; for they have no other Winter than some Rains. We had not time enough to look for Mines; but we found in several places some Pit-Coal; and the Savages show'd us great Mines of Lead and Copper. They have also Quarries of Free-Stone; and of Black, White and Jasper-like Marble, of which they make their Calumets.

These Savages are good-natur'd Men, affable, civil, and obliging; but I design to make a particular Tract concerning their Manners, in my Second Volume. It seems they have no Sentiments of Religion; tho' one may judge from their Actions, that they have a kind of Veneration for the Sun, which they acknowledge, as it seems, for the Maker and Preserver of all things.

Indian Pipe.

When the Nadouessuans and Issati take Tobacco, they look upon the Sun, which they call in their Language Louis; and as soon as they have lighted their Pipe, they present it to the Sun with these Words, Tchendi-ouha Louis, that is to say, Smoak Sun; which I took for a kind of Adoration. I was glad when I heard that this only Deity was call'd Louis, because it was also my Name. They call the Moon Louis Basatsche, that is to say, The Sune of the Night; so that the Moon and Sun have the same Name, except that the Moon is distinguish'd by the Word Basatsche.

They offer also to the Sun the best part of the Beast they kill, which they carry to the Cabin of their Chief, who makes his Profit thereof, and mumble some Words as it raises. They offer also the first Smoak of their Calumets, and then blow the Smoak towards the four Corners of the World. This is all I have observ'd concerning their Religion; which makes me believe that they have a religious Veneration for the Sun.

'Tis surprising that every Nation of the Savages of the Northern America shou'd have a peculiar Language; for tho' some of them live not ten Leagues one from another, they must use an Interpreter to talk together, there being no universal Language amongst them.; as one may call the Lingua Franca, which is understood upon all the Coast of the Mediterranean-Sea; or the Latin Tongue, common to all the Learned Men of Europe. However, those who live so near one another, understand some Words us'd amongst their Neighbours, but not well enough to treat together without an Interpreter; and therefore they used to send one of their Men to each of their Allies, to learn their Language, and remain with them as their Resident, and take care of their Concerns.

The Savages differ from those of Canada both in their Manners, Customs, Temper, Inclinations, and even in the Form of their Head; those of the Meschasipi having their Head very flat. They have large Places in their Villages, where they meet together upon any publick Rejoycings; and where they have publick Games at certain Seasons of the Year. They are lively and active, having nothing of that Morosity and Pensiveness of the Iroquois and others. Their Chiefs have a more

absolute Authority than those of the other Savages, which Power is very narrow; and those who live the nearest to the Mouth of the River, have such a Deference for their Chief, that they dare not pass between Him and a Flambeau, which is always carry'd before him in all ceremonies. These Chiefs have Servants and Officers to wait upon them: They distribute Rewards and Presents as they think fit. In short, they have amongst them a Form of Political Government; and I must own they make a tolerable use of their Reason.

They were altogether ignorant of Fire-Arms, and all other Instruments and Tools of Iron and Steel, their Knives and Axes being made of Flint, and other sharp Stones; whereas we were told that the Spaniards of New Mexico lived not above forty Leagues from them, and supply'd them with all the Tools, and other Commodities of Europe. We found nothing among them that might be suspected to come from the Europeans, unless it be some little Pieces of Glass put upon a Thread, which their Women use to adorn their Heads with. They wear Bracelets and Ear-Rings of fine Pearls, which they spoil, having nothing to bore them, but with Fire.

LA SALLE'S EXPLORATION OF THE MISSISSIPPI

By FATHER ZENOBIUS MEMBRÉ.

(Translated by John Gilmary Shea.)

M. LA SALLE having arrived safely at the Miamies on the 3d of November, 1681, began with his ordinary activity and vast mind, to make all preparations for his departure. He selected twenty-three Frenchmen, and eighteen Mohegans and Abnakis, all inured to war. The latter insisted on taking along ten of their women to cook for them, as their custom is, while they were fishing or hunting. These women had three children, so that the whole party consisted of about fifty-four persons, including the sieur de Tonty and the sieur Dautray, son of the late sieur Bourdon, procurator-general of Quebec.

On the 21st of December, I embarked with the sieur de Tonty and a party of our people on Lake Dauphin [Michigan], to go toward the divine river, called by the Indians Checagou, in order to make necessary arrangements for our voyage. The sieur de la Salle joined us

there with the rest of his troop on the 4th of January, 1682, and found that Tonty had had sleighs made to put all on and carry it over the Chicago which was frozen; for though the winter in these parts is only two months long, it is notwithstanding very severe.

We had to make a portage to enter the Illinois river, which we found also frozen; we made it on the 27th of the same month, and dragging our canoes, baggage, and provisions, about eighty leagues on the river Seignelay [Illinois], which runs into the river Colbert [Mississippi], we traversed the great Illinois town without finding any one there, the Indians having gone to winter thirty leagues lower down on Lake Pimiteaui [Peoria], where Fort Crévecœur stands. We found it in a good state, and La Salle left his orders here. As from this spot navigation is open at all seasons, and free from ice, we embarked in our canoes, and on the 6th of February, reached the mouth of the river Seignelay, at 38° north. The floating ice on the river Colbert, at this place, kept us till the 13th of the same month, when we set out, and six leagues lower down, found the Ozage [Missouri] river, coming from the west. It is full as large as the river Colbert into which it empties troubling it so, that from the mouth of the Ozage the water is hardly drinkable. The Indians assure us that this river is formed by many others, and that they ascend it for ten or twelve days to a mountain where it rises; that beyond this mountain is the sea, where they see great ships; that on the river are a great number of large villages, of many different nations; that there are arable and prairie-lands, and abundance of cattle and beaver. Although this river is very large,

the Colbert does not seem augmented by it; but it pours in so much mud, that from its mouth the water of the great river, whose bed is also slimy, is more like clear mud than river water, without changing at all till it reaches the sea, a distance of more than three hundred leagues, although it receives seven large rivers, the water of which is very beautiful, and which are almost as large as the Mississippi.

On the 14th, six leagues further, we found on the east the village of the Tamaroas, who had gone to the chase; we left there marks of our peaceful coming, and signs of our route, according to practice, in such voyages. We went slowly, because we were obliged to hunt and fish almost daily, not having been able to bring any provisions but Indian corn.

Forty leagues from Tamaroa is the river Oüabache (Ohio), where we stopped. From the mouth of this river you must advance forty-two leagues without stopping, because the banks are low and marshy, and full of thick foam, rushes, and walnut trees. . . .

On the 14th of the same month, the sieur de la Salle took possession of this country with great ceremony. He planted a cross, and set up the king's arms, at which the Indians showed a great joy. You can talk much to Indians by signs, and those with us managed to make themselves a little understood in their language. I took occasion to explain something of the truth of God, and the mysteries of our redemption, of which they saw the arms. During this time they showed that they relished what I said, by raising their eyes to heaven, and kneeling as if to adore. We also saw them rub their hands over their bodies, after rubbing them

over the cross. In fact, on our return from the sea, we found that they had surrounded the cross with a palisade. They finally gave us provisions and men, to conduct us, and serve as interpreters with the Taensa, their allies, who are eighty leagues distant from their village. . . .

On the 22d we reached the Taensa, who dwell around a little lake formed in the land by the river Mississippi. They have eight villages. The walls of their houses are made of earth mixed with straw; the roof is of canes, which form a dome adorned with paintings; they have wooden beds, and much other furniture, and even ornaments in their temples, where they inter the bones of their chiefs. They are dressed in white blankets made of the bark of a tree which they spin; their chief is absolute, and disposes of all without consulting anybody. He is attended by slaves, as are all his family. Food is brought him outside his cabin; drink is given him in a particular cup, with much neatness. His wives and children are similarly treated, and the other Taensa address him with respect and ceremony. . . .

The whole country is covered with palm-trees, laurels of two kinds, plums, peaches, mulberry, apple, and pear trees of every kind. There are also five or six kinds of nut-trees, some of which bear nuts of extraordinary size. They also gave us several kinds of dried fruit to taste; we found them large and good. They have also many other kinds of fruit-trees which I never saw in Europe; but the season was too early to allow us to see the fruit. We observed vines already out of blossom. The mind and character of this people appeared on the whole docile and manageable, and even capable of rea-

son. I made them understand all I wished about our mysteries. They conceived pretty well the necessity of a God, the creator and director of all, but attribute this divinity to the sun. Religion may be greatly advanced among them, as well as among the Akansas, both these nations being half civilized.

Our guides would go no further for fear of falling into the hands of their enemies, for the people on one shore are generally enemies of those on the other. There are forty villages on the east, and thirty-four on the west, of all of which we were told the names.

The 26th of March resuming our course, we perceived, twelve leagues lower down, a periagua or wooden canoe, to which the sieur de Tonty gave chase, till approaching the shore, we perceived a great number of Indians. The sieur de la Salle, with his usual precaution, turned to the opposite banks, and then sent the calumet of peace by the sieur de Tonty. Some of the chief men crossed the river to come to us as good friends. They were fishermen of the Nachié tribe (Natchez), enemies of the Taensa. . . .

At last, after a navigation of about forty leagues, we arrived, on the sixth of April, at a point where the river divides into three channels. The sieur de la Salle divided his party the next day into three bands, to go and explore them. He took the western, the sieur Dautray the southern, the sieur Tonty, whom I accompanied, the middle one. These three channels are beautiful and deep. The water is brackish; after advancing two leagues it became perfectly salt, and advancing on, we discovered the open sea, so that on the ninth of April, with all possible solemnity, we per-

formed the ceremony of planting the cross and raising the arms of France. After we had chanted the hymn of the church, "*Vexilla Regis*," and the "*Te Deum*," the sieur de la Salle, in the name of his majesty, took possession of that river, of all rivers that enter it, and of all the country watered by them. An authentic act was drawn up, signed by all of us there, and amid a volley from all our muskets, a leaden plate inscribed with the arms of France, and the names of those who had just made the discovery, was deposited in the earth. The sieur de la Salle, who always carried an astrolabe, took the latitude of the mouth. Although he kept to himself the exact point, we have learned that the river falls into the gulf of Mexico, between 27° and 28° north, and, as it is thought, at the point where maps lay down the Rio Escondido. This mouth is about thirty leagues distant from the Rio Bravo [Rio Grande], sixty from the Rio de Palmas, and ninety or a hundred leagues from the river Panuco [Tampico], where the nearest Spanish post on the coast is situated. We reckoned that Espiritu Santo bay [Appalachee Bay], lay northeast of the mouth. From the Illinois' River, we always went south or southwest; the river winds a little, preserves to the sea its breadth of about a quarter of a league, is everywhere very deep, without banks, or any obstacle to navigation, although the contrary has been published. This river is reckoned eight hundred leagues long: we travelled at least three hundred and fifty from the mouth of the river Seignelay. . . .

To conclude, our expedition of discovery was accomplished without having lost any of our men, French or

Indian, and without anybody's being wounded, for which we were indebted to the protection of the Almighty, and the great capacity of Monsieur de la Salle. . . . The Illinois language served me about a hundred leagues down the river, and I made the rest understand by gestures and some term in their dialect which I insensibly picked up; but I cannot say that my little efforts produced certain fruits. With regard to these people, perhaps, some one by a secret effect of grace, has profited; God only knows. All we have done has been to see the state of these tribes, and to open the way to the gospel and to missionaries; having baptized only two infants, whom I saw struggling with death, and who, in fact, died in our presence.

Baptizing a Papoose.

ON THE LLANOS, OR STEPPES OF SOUTH AMERICA

(From a Personal Narrative of Travels, etc.)

By ALEXANDER VON HUMBOLDT.

A Proprietor.

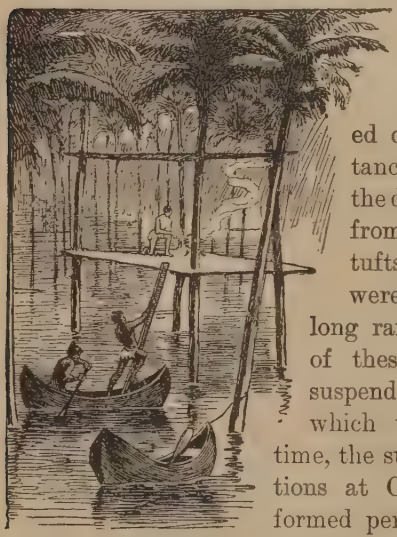
AFTER having passed two nights on horseback, and sought in vain by day, for some shelter from the heat of the sun beneath the tufts of the moriche palm-trees, we arrived before night at the little Hato del Cayman, called also La Guadaloupe. It was a solitary house in the steppes, surrounded by a few small huts, covered with reeds and skins. The cattle, oxen, horses, and mules are not penned, but wander freely over an extent of several square leagues. There is nowhere any enclosure; men, naked to the waist, and armed with a lance, ride over the savannahs to inspect the animals; bringing back those that wander too far from the pastures of the farm, and branding all that do not already bear the mark of their proprietor. These mulattoes, who are known by the name of *peones llaneros*, are partly

freed men and partly slaves. They are constantly exposed to the burning heat of the tropical sun. Their food is meat, dried in the air, and a little salted; and of this even their horses sometimes partake. Being always in the saddle, they fancy they cannot make the slightest excursion on foot.

We found an old negro slave who managed the farm in the absence of his master. He told us of herds composed of several thousand cows, that were grazing in the steppes; yet we asked in vain for a bowl of milk. We were offered, in a calabash, some yellow, muddy, and fetid water, drawn from a neighboring pool. The indolence of the inhabitants of the llanos is such that they do not dig wells, though they know that almost everywhere, at ten feet deep, fine springs are found in a stratum of conglomerate, or red sandstone. After suffering during one half of the year from the effect of inundations, they quietly resign themselves, during the other half, to the most distressing deprivation of water. The old negro advised us to cover the cup with a linen cloth, and drink as through a filter, that we might not be incommoded by the smell, and might swallow less of the yellowish mud suspended in the water. We did not then think that we should afterwards be forced, during whole months, to have recourse to this expedient. The waters of the Orinoco are always loaded with earthy particles; they are even putrid, where dead bodies of alligators are found in the creeks, lying on the banks of sand, or half-buried in the mud. . . .

In proportion as the sun rose towards the zenith, and the earth and the strata of superincumbent air took different temperatures, the phenomenon of the mirage

displayed itself in its numerous modifications. This phenomenon is so common in every zone, that I mention it only because we stopped to measure with some precision the breadth of the aerial distance between the horizon and the suspended object. There was a constant suspension, without inversion. The little currents of air that swept the surface of the soil had so variable a temperature that, in a drove of wild oxen, one part appeared with the legs raised above the surface of the ground, while the other rested on it. The aerial distance was, according to the distance of the animal, from 3′ to 4′. Where tufts of the moriche palm were found growing in long ranges, the extremities of these green rows were suspended like the capes which were, for so long a time, the subject of my observations at Cumana. A well-informed person assured us, that he had seen, between Calabozo and Uritucu, the image of an animal inverted, without there being any direct image. Niebuhr made a similar observation in Arabia. We several times thought we saw on the horizon the figures of tumuli and towers, which disappeared at intervals, without our being able to discern the real shape of the



Tree-Dwellers of the Orinoco.

objects. They were perhaps hillocks, or small eminences, situated beyond the ordinary visual horizon. I need not mention those tracts destitute of vegetation, which appear like large lakes with an undulating surface. This phenomenon, observed in very remote times, has occasioned the mirage to receive in Sanscrit the expressive name of *desire of the antelope*. We admire the frequent allusions in the Indian, Persian, and Arabic poets, to the magical effects of terrestrial refraction. It was scarcely known to the Greeks and Romans. Proud of the riches of their soil, and the mild temperature of the air, they would have felt no envy of this poetry of the desert. It had its birth in Asia; and the oriental poets found its source in the nature of the country they inhabited. They were inspired with the aspect of those vast solitudes, interposed like arms of the sea or gulfs, between lands which nature had adorned with her most luxuriant fertility.

The plain assumes at sunrise a more animated aspect. The cattle, which had reposed during the night along the pools, or beneath clumps of mantitias and rhopalas, were now collected in herds; and these solitudes became peopled with horses, mules, and oxen, that live here free, rather than wild, without settled habitations, and disdaining the care and protection of man. In these hot climates, the oxen, though of Spanish breed, like those of the cold table-lands of Quito, are of a gentle disposition. A traveller runs no risk of being attacked or pursued, as we often were on our excursions on the back of the Cordilleras, where the climate is rude, the aspect of the country more wild, and food less abundant. As we approached Calabozo, we saw herds of roebucks

browsing peacefully in the midst of horses and oxen. They are called *matacani;* their flesh is good; they are a little larger than our roes, and resemble deer with a very sleek skin, of a fawn color, spotted with white. Their horns appear to me to have single points. They had little fear of the presence of man; and in herds of thirty or forty we observed several that were entirely white. This variety, common enough among the large stags of the cold climates of the Andes, surprised us in these low and burning plains. I have since learned, that even the jaguar, in the hot regions of Paraguay, sometimes affords albino varieties, the skin of which is of such uniform whiteness that the spots or rings can be distinguished only in the sunshine. The number of *matacani*, or little deer, is so considerable in the Llanos, that a trade might be carried on with their skins. A skilful hunter could easily kill more than twenty in a day; but such is the indolence of the inhabitants, that often they will not give themselves the trouble of taking the skin. The same indifference is evinced in the chase of the jaguar, a skin of which fetches only one piastre in the steppes of Varinas, while at Cadiz it costs four or five. . . .

In the Mesa de Paja, in the ninth degree of latitude, we entered the basin of the llanos. The sun was almost at its zenith; the earth, wherever it appeared sterile and destitute of vegetation, was at the temperature of 48 or 50°. Not a breath of air was felt at the height at which we were on our mules; yet, in the midst of this apparent calm, whirls of dust incessantly arose, driven on by those small currents of air which glide only over the surface of the ground, and are

occasioned by the difference of temperature between the naked sand and the spots covered with grass. These sand-winds augment the suffocating heat of the air. Every grain of quartz, hotter than the surrounding air, radiates heat in every direction; and it is difficult to observe the temperature, owing to these particles of sand striking against the bulb of the thermometer. All around us the plains seemed to ascend to the sky, and the vast and profound solitude appeared like an ocean covered with sea-weed. According to the unequal mass of vapors diffused through the atmosphere, and the variable decrement in the atmosphere of the different strata of air, the horizon in some parts was clear and distinct; in other parts it appeared undulating, sinuous, and as if striped. The earth there was confounded with the sky. Through the dry mist and strata of vapor the trunks of palm-trees were seen from afar, stripped of their foliage and their verdant summits, looking like the masts of a ship descried upon the horizon.

There is something awful, as well as sad and gloomy, in the uniform aspects of these steppes. Everything seems motionless; scarcely does a small cloud, passing across the zenith, and denoting the approach of the rainy season, cast its shadow on the earth. I know not whether the first aspect of the llanos excites less astonishment than that of the chain of the Andes. Mountainous countries, whatever may be the absolute elevation of the highest summits, have an analogous physiognomy, but we accustom ourselves with difficulty to the view of the Llanos of Venezuela and Casanare, to that of the Pampas of Buenos Ayres and of Chaco, which recall to mind incessantly, and during journeys

of twenty or thirty days, the smooth surface of the ocean. I had seen the plains or llanos of La Mancha in Spain, and the heaths (ericeta) that extend from the extremity of Jutland through Luneburg and Westphalia, to Belgium. These last are really steppes, and, during several ages, only small portions of them have yielded to cultivation; but the plains of the west and north of Europe present only a feeble image to the immense llanos of South America. It is in the south-east of our continent, in Hungary, between the Danube and the Theiss; in Russia, between the Borystenes, the Don, and the Volga, that we find those vast pastures, which seem to have been levelled by a long abode of the waters, and which meet the horizon on every side. The plains of Hungary, where I traversed them on the frontiers of Germany, between Presburg and Oldenburg, strike the imagination of the traveller by the constant mirage; but their greatest extent is more to the east, between Czegled, Debreezin, and Tittel. There they present the appearance of a vast ocean of verdure, having only two outlets, one near Grau and Waitzen, the other between Belgrade and Widden.

The different quarters of the world have been supposed to be characterized by the remark, that Europe has its heaths, Asia its steppes, Africa its deserts, and America its savannahs; but by this distinction, contrasts are established that are not founded either on the nature of things, or the genius of languages. The existence of a heath always supposes an association of plants of the family of ericæ; the steppes of Asia are not everywhere covered with saline plains; the savannahs of Venezuela furnish not only the gramina, but

with them small herbaceous mimosas, legumina, and other dicotyledonous plants. The plains of Songaria, those which extend between the Don and the Volga, and the puszta of Hungary, are real savannahs, pasturages abounding in grasses; while the savannahs to the east and west of the Rocky Mountains and of New Mexico produce chenopodiums containing carbonate and muriate of soda. Asia has real deserts destitute of vegetation, in Arabia, in Gobi, and in Persia. Since we have become better acquainted with the deserts in the interior of Africa, so long and so vaguely confounded together under the name of desert of Sahara (Zahra); it has been observed, that in this continent, towards the east, savannahs and pastures are found, as in Arabia, situated in the midst of naked and barren tracts. It is these deserts, covered with gravel and destitute of plants, which are almost entirely wanting in the New World. I saw them only in that part of Peru, between Amotape and Coquimbo, on the shores of the Pacific. They are called by the Spaniards, not llanos, but the *desiertos* of Sechura and Atacamez. This solitary tract is not broad, but it is four hundred and forty leagues long. The rock pierces everywhere through the quicksands. No drop of rain ever falls on it; and, like the desert of Sahara, north of Timbuctoo, the Peruvian desert affords, near Huaura, a rich mine of native salt. Everywhere else, in the New World, there are plains desert because not inhabited, but no real deserts.

The same phenomena are repeated in the most distant regions; and, instead of designating those vast treeless plains in accordance with the nature of the plants they produce, it seems natural to class them into

deserts, steppes, or savannahs; into bare lands without any appearance of vegetation, and lands covered with gramina or small plants of the dicotyledonous tribe. The savannahs of America, especially those of the temperate zone, have in many works been designated by the French term prairies; but this appears to me little applicable to pastures which are often very dry, though covered with grass of four or five feet in height. The llanos and the pampas of South America are really steppes. They are covered with beautiful verdure in the rainy season, but in the time of great drought they assume the aspects of a desert. The grass is then reduced to powder; the earth cracks; the alligators and the great serpents remain buried in the dried mud, till awakened from their long lethargy by the first showers of spring. These phenomena are observed on barren tracts of fifty or sixty leagues in length, wherever the savannahs are not traversed by rivers; for on the borders of rivulets, and around little pools of stagnant waters, the traveller finds at certain distances, even during the periods of the great droughts, thickets of mauritia, a palm, the leaves of which spread out like a fan, and preserve a brilliant verdure.

The steppes of Asia are all beyond the tropics, and form very elevated tablelands. America also has savannahs of considerable extent on the banks of the mountains of Mexico, Peru, and Quito; but its most extensive steppes, the llanos of Cumana, Caracas, and Meta, are little raised above the level of the ocean, and all belong to the equinoctial zone. These circumstances give them a peculiar character. They have not, like the steppes of Southern Asia, and the deserts of Persia,

those lakes without issue, those small systems of rivers which lose themselves either in the sands, or by subterranean filtrations. The llanos of America incline to the east and the south; and their running waters are branches of the Orinoco.

The course of these rivers once led me to believe, that the plains formed tablelands, raised at least from one hundred to one hundred and fifty toises above the level of the ocean. I supposed that the deserts of interior Africa were also at a considerable height; and that they rose one above another as in tiers, from the coast to the interior of the continent. No barometer has yet been carried into the Sahara. With respect to the llanos of America, I found by barometric heights observed at Calabozo, at the Villa del Pao, and at the mouth of the Meta, that their height is only forty or fifty toises above the level of the sea. The fall of the rivers is extremely gentle, often nearly imperceptible; and therefore the least wind, or the swelling of the Orinoco, causes a reflux in those rivers that flow into it. The Indians believe themselves to be descending during a whole day, when navigating from the mouths of these rivers to their sources. The descending waters are separated from those that flow back by a great body of stagnant water, in which, the equilibrium being disturbed, whirlpools are formed very dangerous for boats.

The chief characteristic of the savannahs or steppes of South America is the absolute want of hills and inequalities, — the perfect level of every part of the soil. Accordingly the Spanish conquerors, who first penetrated from Coro to the banks of the Apure, did not call them deserts or savannahs, or meadows, but

plains (llanos). Often within a distance of thirty square leagues there is not an eminence of a foot high. This resemblance to the surface of the sea strikes the imagination most forcibly where the plains are altogether destitute of palm-trees; and where the mountains of the shore and of the Orinoco are so distant that they cannot be seen, as in the Mesa de Pavones. A person would be tempted there to take the altitude of the sun with a quadrant, if the horizon of the land were not constantly misty on account of the variable effects of refraction. This equality of surface is still more perfect in the meridian of Calabozo, than towards the east, between Cari, La Villa del Pao, and Nueva Barcelona; but it extends without interruption from the mouths of the Orinoco to La Villa de Araure and to Ospinos, on a parallel of a hundred and eighty leagues in length; and from San Carlos to the savannahs of Caqueat, on a meridian of two hundred leagues. It particularly characterizes the New Continent, as it does the low steppes of Asia, between the Borysthenes and the Volga, between the Irtish and the Obi. The deserts of central Africa, of Arabia, Syria, and Persia, Gobi, and Casna, present, on the contrary, many inequalities, ranges of hills, ravines without water, and rocks which pierce the sands.

The llanos, however, notwithstanding the apparent uniformity of their surface, present two kinds of inequalities, which cannot escape the observation of the traveller. The first is known by the name of banks (bancos); they are in reality shoals in the basin of the steppes, fractured strata of sandstone, or compact limestone, standing four or five feet higher than the rest of

the plain. These banks are sometimes three or four leagues in length; they are entirely smooth, with a horizontal surface; their existence is perceived only by examining their margins. The second species of inequality can be recognized only by geodesical or barometric levellings, or by the course of rivers. It is called a *mesa* or table, and is composed of small flats, or rather convex eminences, that rise insensibly to the height of a few toises. Such are, towards the east, in the province of Cumana, on the north of the Villa de la Merced and Candelaria, the Mesas of Amana, of Cuanipa, and of Jonoro, the direction of which is south-west and north-east; and which, in spite of their inconsiderable elevation, divide the waters between the Orinoco and the northern coast of Terra Firma. The convexity of the savannah alone occasions this partition: we there find the "dividing of the waters" (*divortia aquarum*), as in Poland, where, far from the Carpathian mountains, the plain itself divides the waters between the Baltic and the Black Sea. Geographers, who suppose the existence of a chain of mountains wherever there is a line of division, have not failed to mark one in the maps, at the sources of the Rio Neveri, the Unare, the Guarapiche, and the Pao. Thus the priests of Mongol race, according to ancient and superstitious custom, erect oboes, or little mounds of stone, on every point where the rivers flow in an opposite direction.

The uniform landscape of the llanos; the extremely small number of their inhabitants; the fatigue of travelling beneath the burning sky, and an atmosphere darkened by dust; the view of that horizon, which

seems for ever to fly before us; those lonely trunks of palm-trees, which have all the same aspect, and which we despair of reaching, because they are confounded with other trunks that rise by degrees on the visual horizon; all these oceans combine to make the steppes appear far more extensive than they are in reality. The planters who inhabit the southern declivity of the chain of the coast see the steppes extend towards the south, as far as the eye can reach, like an ocean of verdure. They know that from the Delta of the Orinoco to the province of Varinas, and thence, by traversing the banks of the Meta, the Guaviare, and the Caguan, they can advance three hundred and eighty leagues into the plains, first from east to west, and then from north-east to south-east beyond the Equator, to the foot of the Andes of Pasto. They know by the accounts of travellers that the pampas of Buenos Ayres, which are also llanos covered with fine grass, destitute of trees, and filled with oxen and horses become wild. They suppose that, according to the greater part of our maps of America, this continent has only one chain of mountains, that of the Andes, which stretches from south to north; and they form a vague idea of the contiguity of all the plains from the Orinoco and the Apure to the Rio de la Plata and the Straits of Magellan.

The Llanos.

DISCOVERY OF THE YELLOWSTONE

(From the History of the Expedition Under the Command of Lewis and Clark.)

APRIL 26th. We continued our voyage in the morning, and by twelve o'clock camped at eight miles distance, at the junction of the Missouri and Yellowstone rivers, where we were soon joined by Captain Lewis.

On leaving us yesterday he pursued his route along the foot of the hills, which he descended to the distance of eight miles; from these the wide plains watered by the Missouri and the Yellowstone spread themselves before the eye, occasionally varied with the wood of the banks, enlivened by the irregular windings of the two rivers, and animated by vast herds of buffalo, deer, elk, and antelope. The confluence of the two rivers was concealed by the wood, but the Yellowstone itself was only two miles distant, to the south. He therefore descended the hills and camped on the bank of the river, having killed, as he crossed the plain, four buffaloes; the deer alone are shy and retire to the woods, but the elk, antelope, and

buffalo suffered him to approach them without alarm, and often followed him quietly for some distance.

This morning he sent a man up the river to examine it, while he proceeded down to the junction. The ground on the lower side of the Yellowstone near its mouth is flat, and for about a mile seems to be subject to inundation; while that at the point of junction, as well as on the opposite side of the Missouri, is at the usual height of ten to eighteen feet above the water, and therefore not overflowed. There is more timber in the neighborhood of this place, and on the Missouri as far below as Whiteearth (Little Muddy) River, than on any other part of the Missouri on this side of the Chayenne. . . .

This river, which had been known to the French as the *Roche jaune*, or as we have called it the Yellowstone, rises according to Indian information, in the Rocky Mountains (in the Yellowstone National Park); its sources are near those of the Missouri and (not so near those of) the Platte; it may be navigated in canoes almost to its head. It runs first through a mountainous country, in many parts fertile and well-timbered; it then waters a rich, delightful land, broken into valleys and meadows, and well supplied with wood and water, till it reaches the Missouri open meadows and low grounds, sufficiently timbered on its borders. In the upper country its course is represented as very rapid; but during the two last and largest portions, its current is much more gentle than that of the Missouri, which it resembles also in being turbid, though with less sediment.

The man who was sent up the river, reported in the

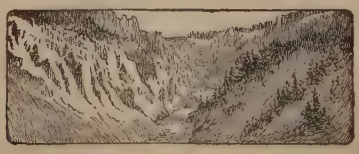
evening that he had gone about eight miles; that during that distance the river winds on both sides of a plain four or five miles wide; that the current was gentle, and much obstructed by sand-bars; that at five miles he had met with a large timbered island, three miles beyond which a creek falls in on the S.E., above a high bluff, in which are several strata of coal. The country, as far as he could discern, resembled that of the Missouri, and in the plain he met several of the big horn animals (*Ovis montana*) but they were too shy to be obtained.

The bed of the Yellowstone, as we observed it near the mouth, is composed of sand and mud, without a stone of any kind. Just above the confluence we measured the two rivers, and found the bed of the Missouri five hundred and twenty yards wide, the water occupying only three hundred and thirty, and the channel deep; while the Yellowstone, including its sand-bar, occupied eight hundred and fifty-eight yards, with two hundred and ninety-seven yards of water; the deepest part of the channel is twelve feet; but the river is now falling, and seems to be nearly at its summer height.

April 27th. — We left the mouth of the Yellowstone. From the point of junction a wood occupies the space between the two rivers, which at the distance of a mile come within two hundred and fifty yards of each other. There a beautiful low plain commences, widening as the rivers recede, and extends along each of them for several miles, rising about half a mile from the Missouri into a plain twelve feet higher than itself. The low plain is a few inches above high water mark, and where it joins the higher plain there

is a channel of sixty or seventy yards in width, through which a part of the Missouri, when at its greatest height, passes into the Yellowstone. At two and one half miles above the junction, and between the high and low plain, is a small lake, two hundred yards wide, extending for a mile parallel with the Missouri along the edge of the upper plain.

At the lower extremity of this lake, about four hundred yards from the Missouri, and twice that distance from the Yellowstone, is a situation highly eligible for a trading establishment. This is in the high plain which extends back three miles in width, and seven or eight miles in length, along the Yellowstone, where it is bordered by an extensive body of woodland, and along the Missouri with less breadth, till three miles above it is circumscribed by the hills within a space four yards in width. A sufficient quantity of limestone for building may easily be procured near the junction of the rivers; it does not lie in regular strata, but is in large irregular masses, of a light color, and apparently of an excellent quality. Game is very abundant, and as yet quite gentle; above all, its elevation recommends it as preferable to the land at the confluence of the rivers, which their variable channels may render very insecure.



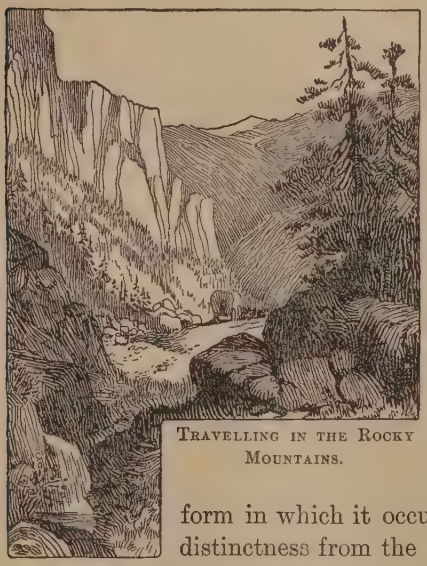
Scene on the Yellowstone.

AMONG THE ROCKY MOUNTAINS

(From Captain Frémont's Narrative.)

AUGUST 25. — Remaining in camp until nearly 11 o'clock, we travelled a short distance down the river, and halted to noon on the bank, at a point where the road quits the valley of Bear River, and, crossing a ridge which divides the Great Basin from the Pacific waters, reaches Fort Hall, by way of the Portneuf River, in a distance of probably fifty miles, or two and a half days' journey for wagons. An examination of the great lake which is the outlet of the river, and the principal feature of geographical interest in the basin, was one of the main objects contemplated in the general plan of our survey, and I accordingly determined at this place to leave the road, and, after having completed a reconnoissance of the lake, regain it subsequently at Fort Hall. But our little stock of provisions had again become extremely low; we had only dried meat sufficient for one meal, and our supply of flour and other comforts was entirely exhausted. I therefore immediately despatched one of the party, Henry Lee, with a note to Carson, at Fort Hall, directing him to

load a pack-horse with whatever could be obtained there in the way of provisions, and endeavor to overtake me on the river. In the meantime, we had picked up along the road two tolerably well-grown calves, which would have become food for wolves, and which had probably been left by some of the earlier emigrants, none of those we had met having made any claim to them; and on these I mainly relied for support during our circuit to the lake.



Travelling in the Rocky Mountains.

In sweeping around the point of the mountain which runs down into the bend, the river here passes between perpendicular walls of basalt, which always fix the attention, from the regular form in which it occurs, and its perfect distinctness from the surrounding rocks among which it has been placed. The mountain, which is rugged and steep, and, by our measurement, fourteen hundred feet above the river directly opposite the place of our halt, is called the Sheep Rock — probably because a flock of the common mountain sheep (ovis montana) had been seen on the craggy point.

As we were about resuming our march in the afternoon, I was attracted by the singular appearance of an isolated hill with a concave summit, in the plain, about two miles from the river, and turned off towards it, while the camp proceeded on its way to the southward in search of the lake. I found the thin and stony soil of the plain entirely underlaid by the basalt which forms the river walls; and when I reached the neighborhood of the hill, the surface of the plain was rent into frequent fissures and chasms of the same scoriated volcanic rock, from forty to sixty feet deep, but which there was not sufficient light to penetrate entirely, and which I had not time to descend. Arrived at the summit of the hill, I found that it terminated in a very perfect crater, of an oval, or nearly circular form, three hundred and sixty paces in circumference, and sixty feet at the greatest depth. The walls, which were perfectly vertical, and disposed like masonry in a very regular manner, were composed of a brown-colored scoriaceous lava, evidently the production of a modern volcano, and having all the appearance of the lighter scoriaceous lavas of Mount Ætna, Vesuvius, and other volcanoes. The faces of the walls were reddened and glazed by the fire, in which they had been melted, and which had left them contorted and twisted by its violent action.

Our route during the afternoon was a little rough, being (in the direction we had taken) over a volcanic plain, where our progress was sometimes obstructed by fissures, and black beds composed of fragments of the rock. On both sides, the mountains appeared very broken, but tolerably well timbered.

August 26. — Crossing a point of ridge which makes into the river, we fell upon it again before sunset, and encamped on the right bank, opposite to the encampment of three lodges of Snake Indians. They visited us during the evening, and we obtained from them a small quantity of roots of different kinds, in exchange for goods. Among them was a sweet root of very pleasant flavor, having somewhat the taste of preserved quince. My endeavors to become acquainted with the plants which furnish to the Indians a portion of their support were only gradually successful, and after long and persevering attention; and even after obtaining, I did not succeed in preserving them until they could be satisfactorily determined. In this portion of the journey, I found this particular root cut up into such small pieces, that it was only to be identified by its taste, when the bulb was met with in perfect form among the Indians lower down on the Columbia, among whom it is the highly celebrated kamas. It was long afterwards, on our return through Upper California, that I found the plant itself in bloom, which I supposed to furnish the kamas root (camassia esculenta). The root diet had a rather mournful effect at the commencement, and one of the calves was killed this evening for food. The animals fared well on rushes.

August 27. — The morning was cloudy, with appearance of rain, and the thermometer at sunrise at 29°. Making an unusually early start, we crossed the river at a good ford; and, following for about three hours a trail which led along the bottom, we entered a labyrinth of hills below the main ridge, and halted to noon in the ravine of a pretty little stream timbered

with cotton-wood of a large size, ash-leaved maple, with cherry and other shrubby trees. The hazy weather which had prevented any very extended views since entering the Green River valley, began now to disappear. There was a slight rain in the earlier part of the day, and at noon, when the thermometer had risen to 79.5°, we had a bright sun, with blue sky and scattered cumuli. According to the barometer, our halt here among the hills was at an elevation of five thousand three hundred and twenty feet. Crossing a dividing ridge in the afternoon, we followed down another little Bear River tributary, to the point where it emerged on an open green flat among the hills, timbered with groves, and bordered with cane thickets, but without water. A pretty little rivulet, coming out of the hill-side, and overhung by tall flowering plants of a species I had not hitherto seen, furnished us with a good camping-place. The evening was cloudy, the temperature at sunset 69°, and the elevation five thousand one hundred and forty feet. Among the plants occurring along the line of road during the day, *épinettes des prairies* (grindelia squarrosa) was in considerable abundance, and is among the very few plants remaining in bloom — the whole country having now an autumnal appearance, in the crisped and yellow plants, and dried-up grasses. Many cranes were seen during the day, with a few antelopes, very shy and wild.

August 28. — During the night we had a thunder storm, with moderate rain, which has made the air this morning very clear, the thermometer being at 55°. Leaving our encampment at the Cane spring, and quitting the trail on which we had been travelling, and

which would probably have afforded us a good road to the lake, we crossed some very deep ravines, and, in about an hour's travelling, again reached the river. We were now in a valley five or six miles wide, between mountain ranges, which, about thirty miles below, appeared to close up and terminate the valley, leaving for the river only a very narrow pass, or cañon, behind which we imagined that we should find the broad waters of the lake. We made the usual halt at the mouth of a small clear stream, having a slightly mineral taste (perhaps of salt), four thousand seven hundred and sixty feet above the gulf. In the afternoon we climbed a very steep sandy hill; and, after a slow and winding day's march of twenty-seven miles, encamped at a slough on the river. There were great quantities of geese and ducks, of which only a few were shot; the Indians having probably made them very wild. The men employed themselves in fishing, but caught nothing. A skunk (mephitis Americana), which was killed in the afternoon, made a supper for one of the messes. The river is bordered occasionally with fields of cane, which were regarded as an indication of our approach to a lake country. We had frequent showers of rain during the night, with thunder.

August 29. — The thermometer at sunrise was 54°, with air from the N.W., and dark rainy clouds moving on the horizon; rain squalls and bright sunshine by intervals. I rode ahead with Basil to explore the country, and, continuing about three miles along the river, turned directly off on a trail running towards three marked gaps in the bordering range, where the mountains appeared cut through to their bases, towards

which the river plain rose gradually. Putting our horses into a gallop on some fresh tracks which showed very plainly in the wet path, we came suddenly upon a small party of Shoshonee Indians, who had fallen into the trail from the north. We could only communicate by signs; but they made us understand that the road through the chain was a very excellent one leading into a broad valley which ran to the southward. We halted to noon at what may be called the gate of the pass; on either side of which were huge mountains of rock, between which stole a little pure water stream, with a margin just sufficiently large for our passage. From the river, the plain had gradually risen to an altitude of five thousand five hundred feet, and, by meridian observation, the latitude of the entrance was 42°.

In the interval of our usual halt, several of us wandered along up the stream to examine the pass more at leisure. Within the gate, the rocks receded a little back, leaving a very narrow, but most beautiful valley, through which the little stream wound its way, hidden by different kinds of trees and shrubs — aspen, maple, willow, cherry, and elder; a fine verdure of smooth short grass spread over the remaining space to the bare sides of the rocky walls. These were of a blue limestone, which constitutes the mountain here; and opening directly on the grassy bottom were several curious caves, which appeared to be inhabited by root diggers. On one side was gathered a heap of leaves for a bed, and they were dry, open, and pleasant. On the roofs of the caves I remarked bituminous exudations from the rock. . . .

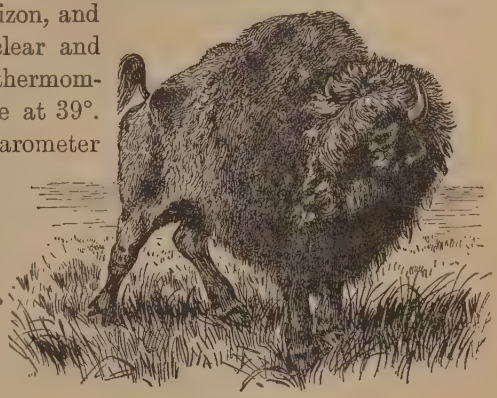
The most remarkable feature of the pass is the Standing Rock, which has fallen from the cliffs above, and standing perpendicularly near the middle of the valley, presents itself like a watch tower in the pass. It will give you a tolerably correct idea of the character of the scenery in this country, where generally the mountains rise abruptly up from comparatively unbroken plains and level valleys; but it will entirely fail in representing the picturesque beauty of this delightful place, where a green valley, full of foliage, and a hundred yards wide, contrasts with naked crags that spire up into a blue line of pinnacles three thousand feet above, sometimes crested with cedar and pine, and sometimes ragged and bare.

The detention we met with in opening the road, and perhaps a willingness to linger on the way, made the afternoon's travel short; and about two miles from the entrance we passed through another gate, and encamped on the stream at the junction of a little fork from the southward, around which the mountains stooped more gently down, forming a small open cove.

As it was still early in the afternoon, Basil and myself in one direction, and Mr. Preuss in another, set out to explore the country, and ascended different neighboring peaks, in the hope of seeing some indications of the lake; but though our elevation afforded magnificent views, the eye ranging over a long extent of Bear River, with the broad and fertile Cache valley in the direction of our search, was only to be seen a bed of apparently impracticable mountains. Among these, the trail we had been following turned sharply to the northward, and it began to be doubtful if it would not

lead us away from the object of our destination; but I nevertheless determined to keep it, in the belief that it would eventually bring us right. A squall of rain drove us out of the mountain, and it was late when we reached the camp. The evening closed in with frequent showers of rain, with some lightning and thunder.

August 30. — We had constant thunder storms during the night, but in the morning the clouds were sinking to the horizon, and the air was clear and cold, with the thermometer at sunrise at 39°. Elevation by barometer five thousand five hundred and eighty feet. We were in motion early, continuing up the little stream without encountering any ascent where a horse would not easily gallop, and, crossing a slight dividing ground at the summit, descended upon a small stream, along which we continued on the same excellent road. In riding through the pass, numerous cranes were seen; and prairie hens, or grouse, (bonasa umbellus,) which lately had been rare, were very abundant.



Buffalo.

This little affluent brought us to a larger stream, down which we travelled through a more open bottom, on a level road, where heavily laden wagons could pass

without obstacle. The hills on the right grew lower, and, on entering a more open country, we discovered a Shoshonee village; and being desirous to obtain information, and purchase from them some roots and berries, we halted on the river, which was lightly wooded with cherry, willow, maple, service berry, and aspen. The barometer indicated a height of 5170 feet. A number of Indians came immediately over to visit us, and several men were sent to the village with goods, tobacco, knives, cloth, vermillion, and the usual trinkets, to exchange for provisions. Several of the Indians drew aside their blankets, showing me their lean and bony figures; and I would not any longer tempt them with a display of our merchandise to part with their wretched subsistence, when they gave as a reason that it would expose them to temporary starvation. A great portion of the region inhabited by this nation formerly abounded in game; the buffalo ranging about in herds, as we had found them on the eastern waters, and the plains dotted with scattered bands of antelope; but so rapidly have they disappeared within a few years, that now, as we journeyed along, an occasional buffalo skull and a few wild antelope were all that remained of the abundance which had covered the country with animal life.

On the Trail.

TASMAN'S VOYAGE OF DISCOVERY

(Extracted from His Journal.)

Native Chief.

ON August 14, 1642, I sailed from Batavia with two vessels; the one called the Heemskirk, and the other the Zee-Haan. On September 5 I anchored at Maeciur Island, in the latitude of 20° south, and in the longitude of 83° 48′. It is about fifteen leagues in circumference, and has a very fine harbor, at the entrance of which there is one hundred fathoms water. The country is mountainous; but the mountains are covered with green trees. The tops of these mountains are so high that they are lost in the clouds, and are frequently covered by thick exhalations or smoke that ascends from them. The air of this island is extremely wholesome. It is well furnished with flesh and fowl; and the sea on its coasts abounds with all sorts of fish. The finest ebony in the world grows here. It is a tall, straight tree of a moderate thickness, covered with a green bark, very thick, under which the wood is as black as pitch, and as close as ivory. There are other trees on the island, which are of a bright red, and a third sort as yellow as

wax. The ships belonging to the East India Company commonly touch at this island for refreshments on their passage to Batavia. . . .

On the 24th of November, being in the latitude of 42° 25′ south, and in the longitude of 163° 50′, I discovered land, which lay east-south-east at the distance of ten miles, which I called Van Diemen's Land. The compass pointed right towards this land. I anchored on the 1st of December, in a bay, which I called the Bay of Frederic Henry. I heard, or at least fancied I heard, the sound of people upon the shore; but I saw nobody. All I met with worth observing was two trees, which were two fathoms or two fathoms and a half in girth, and sixty or sixty-five feet high from the root to the branches: they had cut with a flint a kind of steps in the bark, in order to climb up to the birds' nests: these steps were the distance of five feet from each other; so that we must conclude that either these people are of a prodigious size, or that they have some way of climbing trees that we are not used to; in one of the trees the steps were so fresh, that we judged they could not have been cut above four days.

The noise we heard resembled the noise of some sort of trumpet; it seemed to be at no great distance, but we saw no living creature notwithstanding. I perceived also in the sand the marks of wild beasts' feet, resembling those of a tiger, or some such creature; I gathered also some gum from the trees, and likewise some lac. The tide ebbs and flows there about three feet. The trees in this country do not grow very close, nor are they encumbered with bushes or underwood. I observed smoke in several places; however, we did noth-

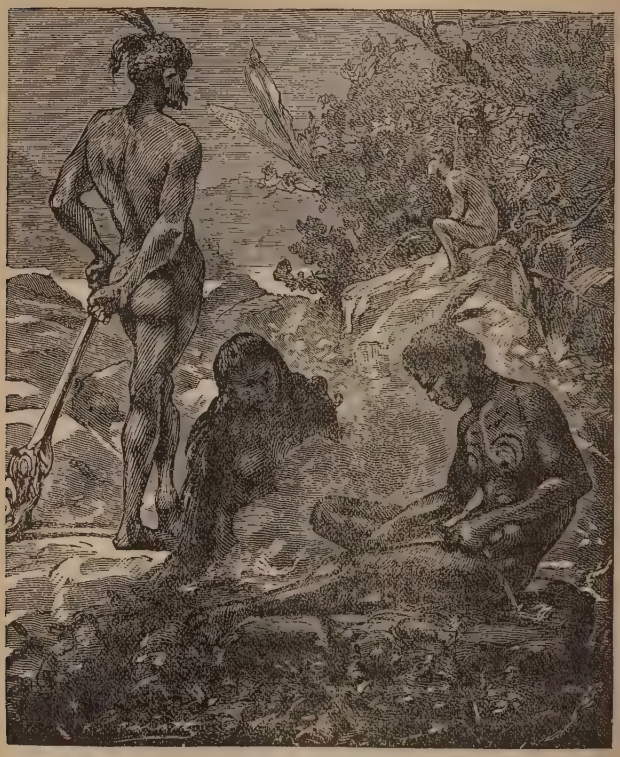
ing more than set up a post, on which every one cut his name, or his mark, and upon which I hoisted a flag. On December 5th I quitted Van Diemen's Land, and resolved to steer east to the longitude of 195°, in hopes of discovering the Islands of Solomon.

I discovered a high mountainous country, which is at present marked in the charts under the name of New Zealand. I coasted along the shore of this country to the north-north-east till the 18th; and anchored in a fine bay, where I observed the variation to be 9° towards the east.

We found here abundance of the inhabitants: they had very hoarse voices, and were very large-made people. They durst not approach the ship nearer than a stone's throw; and we often observed them playing on a kind of trumpet, to which we answered with the instruments that were on board our vessel. These people were of a color between brown and yellow, their hair long, and almost as thick as that of the Japanese, combed up, and fixed on the top of their heads with a quill, or some such thing, that was thickest in the middle, in the very same manner that the Japanese fastened their hair behind their heads. These people cover the middle of their bodies, some with a kind of mat, others with a sort of woollen cloth, but, as for their upper and lower parts, they leave them altogether naked.

On the 19th of December, these savages began to grow a little bolder, and more familiar, insomuch that at last they ventured on board the Heemskirk in order to trade with those in the vessel. As soon as I perceived it, being apprehensive that they might attempt to surprise that ship, I sent my shallop, with seven

men, to put the people in the Heemskirk upon their guard, and to direct them not to place any confidence in those people. My seven men, being without arms,



New Zealanders.

were attacked by these savages, who killed three of the seven, and forced the other four to swim for their lives, which occasioned my giving that place the name of

the Bay of Murderers. Our ship's company would, undoubtedly, have taken a severe revenge, if the rough weather had not hindered them. From this bay we bore away east, having the land in a manner all round us. This country appeared to us rich, fertile, and very well situated, but as the weather was very foul, and we had at this time a very strong west wind, we found it very difficult to get clear of the land.

On the 4th of January, 1643, we sailed quite to the cape, which lies north-west, where we found the sea rolling in from the north-east, whence we concluded that we had at last found a passage, which gave us no small joy. There was in this strait an island, which we called the island of the Three Kings; the cape of which we doubled, with a design to have refreshed ourselves; but, as we approached it, we perceived on the mountain thirty or five-and-thirty persons, who, as far as we could discern at such a distance, were men of very large size, and had each of them a large club in his hand: they called out to us in a rough strong voice, but we could not understand anything of what they said. We observed that these people walked at a very great rate, and that they took prodigious large strides. We made the tour of the island, in doing which we saw but very few inhabitants; nor did any of the country seem to be cultivated. . . .

On the 19th of January we discovered an island about two or three miles in circumference, which was, as far as we could discern, very high, steep, and barren. We were very desirous of coming nearer it, but were hindered by south-east and south-south-east winds. We called it the Isle of Pylstart, because of the great num-

ber of that sort of birds we saw flying about it, and the next day we saw two other islands.

On the 21st we drew near to the coast of the most northern island, which, though not very high, yet was the larger of the two: we called one of these islands Amsterdam, and the other Rotterdam. Upon that of Rotterdam we found great plenty of hogs, fowls, and all sorts of fruits, and other refreshments. These islanders did not seem to have the use of arms, inasmuch as we saw nothing like them in any of their hands while we were upon the island; the usage they gave us was fair and friendly, except that they would steal a little. The current is not very considerable in this place, where it ebbs north-east, and flows south-west. A south-west moon causes a spring-tide, which rises seven or eight feet at least. The wind blows there continually south-east, or south-south-east, which occasioned the Heemskirk's being carried out of the road, but, however, without any damage. We did not fill any water here because it was extremely hard to get it to the ship.

On the 25th, after having had sight of several other islands, we made that of Rotterdam: the islanders here resemble those on the island of Amsterdam. The people were very good-natured, parted readily with what they had, did not seem to be acquainted with the use of arms, but were given to thieving like the natives of Amsterdam Island. Here we took in water and other refreshments, with all the conveniency imaginable. We made the whole circuit of the island, which we found well-stocked with cocoa-trees, very regularly planted; we likewise saw abundance of gardens, ex-

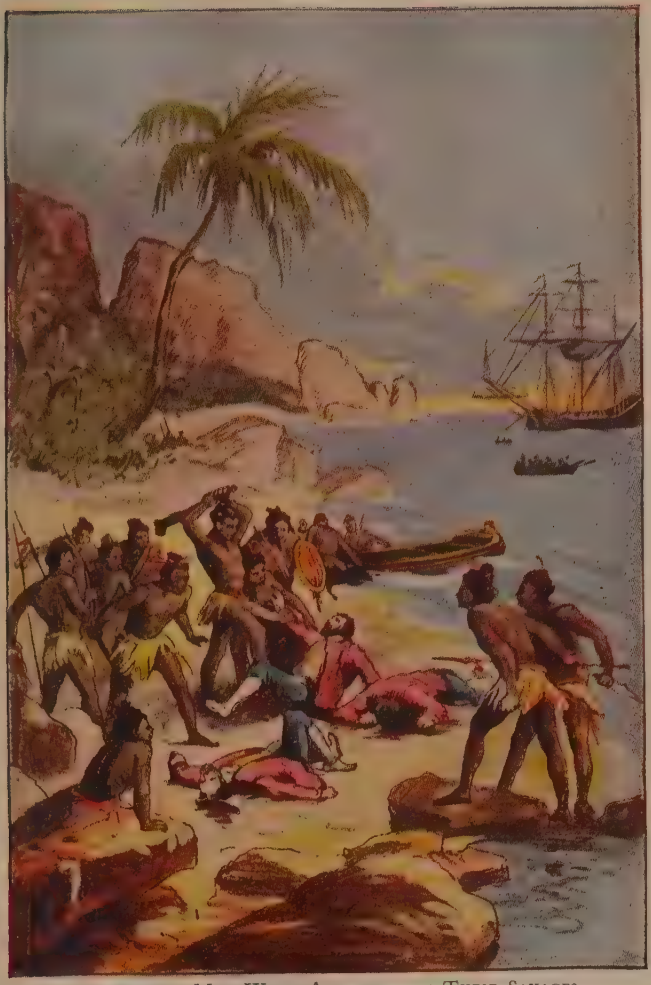
tremely well laid out, plentifully stocked with all kinds of fruit-trees, all planted in straight lines, and the whole kept in such excellent order, that nothing could have a better effect upon the eye. After quitting the island of Rotterdam, we had sight of several other islands; which, however, did not engage us to alter the resolution we had taken of sailing north, to the height of 17° south latitude, and from thence to shape a west course, without going near either Traitor's Island, or those of Horne, we having then a very brisk wind from the south-east, or east-south-east. . . .

On February 6th we found ourselves embarrassed by nineteen or twenty small islands, every one of which was surrounded with sands, shoals, and rocks. These are marked in the charts by the name of Prince William's Islands, or Heemskirk's Shallows. On the 8th we had abundance of rain, a strong wind from the north-east, or the north-north-east, with dark cold weather. Fearing, therefore, that we were run farther to the west than we thought ourselves by our reckoning, and dreading that we should fall to the south of New Guinea, or be thrown upon some unknown coast in such blowing misty weather, we resolved to stand away to the north, or to the north-north-west, till we should arrive in the latitude of 4, 5, or 6° south, and then to bear away west for the coast of New Guinea, as the least dangerous way that we could take. . . .

We passed some days without being able to take any observation, because the weather was all that time dark and rainy. On the 22d we had fine fair weather, and the benefit of the east trade wind. This day we had sight of land, which lay four miles west. This land

proved to be a cluster of twenty islands, which in the maps are called Anthong Java. They lie ninety miles or thereabouts from the coast of New Guinea. (It may not be amiss to observe here, that what Captain Tasman calls the coast of New Guinea, is in reality the coast of New Britain, which Captain Dampier first discovered to be a large island separated from the coast of New Guinea.)

On the 25th, we were in the height of the islands of Mark, which were discovered by William Schovten and James le Maire. They are fourteen or fifteen in number, inhabited by savages, with black hair, dressed and trimmed in the same manner as those we saw before at the Bay of Murderers in New Zealand. On the 29th we passed the Green Islands, and on the 30th that of St. John, which were likewise discovered by Schovten and Le Maire. (This island they found to be of a considerable extent, and judged it to lie at the distance of one thousand eight hundred and forty leagues from the coast of Peru. It appeared to them well inhabited and well cultivated, abounding with flesh, fowl, fish, fruit, and other refreshments. The inhabitants made use of canoes of all sizes, were armed with slings, darts, and wooden swords, wore necklaces and bracelets of pearl, and rings in their noses. They were, however, very intractable, notwithstanding all the pains that could be taken to engage them in a fair correspondence, so that Captain Schovten was at last obliged to fire upon them to prevent them from making themselves masters of his vessel, which they attacked with a great deal of vigor; and very probably this was the reason that Captain Tasman did not attempt



"My Seven Men Were Attacked by These Savages, Who Killed Three of the Seven."

to land or make any farther discovery.) On April 1st, we were in the latitude of 4° 30′ south, and in the longitude of 171° 2′, the variation being 8° 45′ to the east, having now sight of the coast of New Guinea; and endeavoring to double the cape which the Spaniards call Cabo Santa Maria, we continued to sail along the coast which lies north-west. We afterwards

KANGAROOS.

passed the islands of Antony, Cæens, Gardeners Island, and Fishers Island, advancing towards the promontory called Struis Hoek, where the coast runs south and south-east. We resolved to pursue the same route, and to continue steering south till we should either discover land or a passage on that side. . . .

On April 12th, part of the crew were wakened out

of their sleep by an earthquake. They immediately ran upon deck, supposing that the ship had struck. On heaving the lead, however, there was no bottom to be found. We had afterwards several shocks, but none of them so violent as the first. We had then doubled the Struis Hoek, and were at that time in the Bay of Good Hope.

On the 20th, we drew near the Brandande Yland, i.e., burning island, which William Schovten mentions, and we perceived a great flame issuing, as he says, from the top of a high mountain. When we were between that island and the continent, we saw a vast number of fires along the shore and half-way up the mountain, from whence we concluded that the country must be very populous. We were often detained on this coast by calms, and frequently observed small trees, bamboos, and shrubs, which the rivers on that coast carried into the sea; from which we inferred that this part of the country was extremely well watered, and that the land must be very good. The next morning we passed the burning mountain, and continued a west-north-west course along the coast.

On the 27th, we fancied that we had a sight of the island of Moa, but it proved to be that of Jama, which lies a little to the east of Moa. We found here great plenty of cocoa-nuts and other refreshments. The inhabitants were absolutely black, and could easily repeat the words that they heard others speak, which shows their own to be a very copious language. It is, however, exceedingly difficult to pronounce, because they make frequent use of the letter R, and sometimes to such a degree that it occurs twice or thrice in the

same word. The next day we anchored on the coast of the island of Moa, where we likewise found abundance of refreshments, and where we were obliged by bad weather to stay till May 9th. We purchased there, by way of exchange, six thousand cocoanuts, and a hundred bags of pysanghs or Indian figs. When we first began to trade with these people, one of our seamen was wounded by an arrow that one of the natives let fly, either through malice or inadvertency. We were at that very juncture endeavoring to bring our ships close to the shore, which so terrified these islanders, that they brought of their own accord on board us, the man who had shot the arrow and left him at our mercy. We found them after this accident much more tractable than before in every respect. Our sailors, therefore, pulled off the iron hoops from some of the old water-casks, stuck them into wooden handles, and filing them to an edge, sold these awkward knives to the inhabitants for their fruits.

In all probability they had not forgot what happened to our people on July 16, 1616, in the days of William Schovten: these people, it seems, treated him very ill; upon which James le Maire brought his ship close to the shore, and fired a broadside through the woods; the bullets, flying through the trees, struck the negroes with such a panic, that they fled in an instant up into the country, and durst not show their heads again till they had made full satisfaction for what was past, and thereby secured their safety for the time to come; and he traded with them afterwards very peaceably, and with mutual satisfaction. . . .

On the 12th of May, we continued coasting the north

side of the island of William Schovten, which is about eighteen or nineteen miles long, very populous, and the people very brisk and active. It was with great caution that Schovten gave his name to this island, for having observed that there were abundance of small islands laid down in the charts on the coast of New Guinea, he was suspicious that this might be of the number. But since that time it seems a point generally agreed, that this island had not before any particular name; and therefore, in all subsequent voyages, we find it constantly mentioned by the name of Schovten's Island.

He describes it as a very fertile and well-peopled island; the inhabitants of which were so far from discovering anything of a savage nature, that they gave apparent testimonies of their having had an extensive commerce before he touched there, since they not only showed him various commodities from the Spaniards, but also several samples of china ware; he observes that they are very unlike the nations he had seen before, being rather of an olive color than black; some having short, others long hair, dressed after different fashions; they were also a taller, stronger, and stouter people than their neighbors. These little circumstances, which may seem tedious or trifling to such as read only for amusement, are, however, of very great importance to such as have discoveries in view; because they argue that these people have a general correspondence; the difference of their complexion must arise from a mixed descent; and the different manner of wearing their hair is undoubtedly owing to their following the fashion of different nations, as

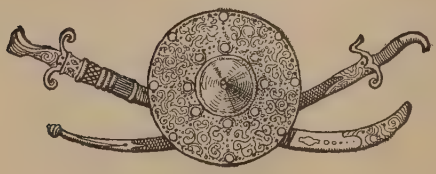
their fancies lead them. He farther observes that their vessels were larger and better contrived than their neighbors'; that they readily parted with their bows and arrows in exchange for goods, and that they were particularly fond of glass and ironware, which, perhaps, they not only used themselves, but employed likewise in their commerce. The most western point of the island he called the Cape of Good Hope. . . .

In the neighborhood of this island Schovten also met with an earthquake, which alarmed the ship's company excessively, from an apprehension that they had struck upon a rock. There are some other islands in the neighborhood of this, well peopled, and well planted, abounding with excellent fruits, especially of the melon kind. These islands lie, as it were, on the confines of the southern continent, and the East Indies, so that the inhabitants enjoy all the advantages resulting from their own happy climate, and from their traffic with their neighbors, especially with those of Ternate and Amboyna, who come thither yearly to purchase their commodities, and who are likewise visited at certain seasons by the people of these islands in their turn.

On the 18th of May, we were arrived at the western extremity of New Guinea, which is a detached point or promontory (though it is not marked so even in the latest maps); here we met with calms, variable and contrary winds, with much rain; from thence we steered for Ceram, leaving the Cape on the north, and arrived safely on that island; (by this time Captain Tasman had fairly surrounded the continent he was instructed to discover, and had therefore nothing now farther in

view than to return to Batavia, in order to report the discoveries he had made).

On the 27th of May we passed through the straits of Boura, or Bouton, and continued our passage to Batavia, where we arrived on the 15th of June. . . .



VOYAGE OF THE BATAVIA

By FRANCIS PELSART.

THE directors of the East India Company, animated by the return of five ships, under General Carpenter, richly laden, caused, the very same year, 1628, eleven vessels to be equipped for the same voyage; amongst which there was one ship called the Batavia, commanded by Captain Francis Pelsart. They sailed out of the Texel on the 28th of October, 1628; and as it would be tedious and troublesome to the reader to set down a long account of things perfectly well known, I shall say nothing of the occurrences that happened in their passage to the Cape of Good Hope; but content myself with observing that on 4th of June, in the following year 1629, this vessel, the Batavia, being separated from the fleet in a storm, was driven on the Abrollos or shoals, which lie in the latitude of 28° south, and which have been since called by the Dutch, the Abrollos of Frederic Houtman. Captain Pelsart, who was sick in bed when this accident happened, perceiving that his ship had struck, ran immediately upon

deck. It was night indeed; but the weather was fair and the moon shone very bright; the sails were up; the course they steered was north-east by north, and the sea appeared as far as they could behold it covered with a white froth. The captain called up the master and charged him with the loss of the ship, who excused himself by saying he had taken all the care he could; and that having discerned this froth at a distance, he asked the steersman what he thought of it, who told him that the sea appeared white by its reflecting the rays of the moon. The captain then asked him what was to be done, and in what part of the world he thought they were. The master replied, that God only knew that; and that the ship was fast on a bank hitherto undiscovered. Upon this they began to throw the lead, and found that they had forty-eight feet of water before, and much less behind the vessel. The crew immediately agreed to throw their cannon overboard, in hopes that when the ship was lightened she might be brought to float again. They let fall an anchor however; and while they were thus employed, a most dreadful storm arose of wind and rain; which soon convinced them of the danger they were in; for being surrounded with rocks and shoals, the ship was continually striking.

They then resolved to cut away the main-mast, which they did, and this augmented the shock, neither could they get clear of it, though they cut it close by the board, because it was much entangled with the rigging; they could see no land except an island which was about the distance of three leagues, and two smaller islands, or rather rocks, which lay nearer.

They immediately sent the master to examine them, who returned about nine in the morning, and reported that the sea at high water did not cover them, but that the coast was so rocky and full of shoals that it would be very difficult to land upon them; they resolved, however, to run the risk, and to send most of their company on shore to pacify the women, children, sick people, and such as were out of their wits with fear, whose cries and noise served only to disturb them. About ten o'clock they embarked these in their shallop and skiff, and, perceiving their vessel began to break, they doubled their diligence; they likewise endeavored to get their bread up, but they did not take the same care of the water, not reflecting in their fright that they might be much distressed for want of it on shore; and what hindered them most of all was the brutal behavior of some of the crew that made themselves drunk with wine, of which no care was taken. In short, such was their confusion that they had made but three trips that day, carrying over to the island one hundred and eighty persons, twenty barrels of bread, and some small casks of water. The master returned on board towards evening, and told the captain that it was to no purpose to send more provisions on shore, since the people only wasted those they had already. Upon this the captain went in the shallop, to put things in better order, and was then informed that there was no water to be found upon the island; he endeavored to return to the ship in order to bring off a supply, together with the most valuable part of their cargo, but a storm suddenly arising, he was forced to return.

The next day was spent in removing their water and most valuable goods on shore; and afterwards the captain in the skiff, and the master in the shallop, endeavored to return to the vessel, but found the sea run so high that it was impossible to get on board. In this extremity the carpenter threw himself out of the ship, and swam to them, in order to inform them to what hardships those left in the vessel were reduced, and they sent him back with orders for them to make rafts, by tying the planks together, and endeavor on these to reach the shallop and skiff; but before this could be done, the weather became so rough that the captain was obliged to return, leaving, with the utmost grief, his lieutenant and seventy men on the very point of perishing on board the vessel. Those who were got on the little island were not in a much better condition, for, upon taking an account of their water, they found they had not above forty gallons for forty people, and on the larger island, where there were one hundred and twenty, their stock was still less. Those on the little island began to murmur, and to complain of their officers, because they did not go in search of water, in the islands that were within sight of them, and they represented the necessity of this to Captain Pelsart, who agreed to their request, but insisted before he went to communicate his design to the rest of the people; they consented to this, but not till the captain had declared that, without the consent of the company on the large island, he would, rather than leave them, go and perish on board the ship. When they were got pretty near the shore, he who commanded the boat told the captain that if he had anything to say, he must cry out to the

people, for that they would not suffer him to go out of the boat. The captain immediately attempted to throw himself overboard in order to swim to the island. Those who were in the boat prevented him; and all that he could obtain from them was, to throw on shore his table-book, in which he wrote a line or two to inform them that he was gone in the skiff to look for water in the adjacent islands.

He accordingly coasted them all with the greatest care, and found in most of them considerable quantities of water in the holes of the rocks, but so mixed with the sea-water that it was unfit for use; and therefore they were obliged to go farther. The first thing they did was to make a deck to their boat, because they found it was impracticable to navigate those seas in an open vessel. Some of the crew joined them by the time the work was finished; and the captain having obtained a paper, signed by all his men, importing that it was their desire that he should go in search of water, he immediately put to sea, having first taken an observation by which he found they were in the latitude of 28° 13′ south. They had not been long at sea before they had sight of the continent, which appeared to them to lie about sixteen miles north by west from the place they had suffered shipwreck. They found about twenty-five or thirty fathoms water; and as night drew on, they kept out to sea; and after midnight stood in for the land, that they might be near the coast in the morning. On the 9th of June they found themselves as they reckoned, about three miles from the shore; on which they plied all that day, sailing sometimes north, sometimes west; the country appearing low, naked,

and the coast excessively rocky; so that they thought it resembled the country near Dover. At last they saw a little creek, into which they were willing to put, because it appeared to have a sandy bottom; but when they attempted to enter it, the sea ran so high that they were forced to desist.

On the 10th they remained on the same coast, plying to and again, as they had done the day before; but the weather growing worse and worse, they were obliged to abandon their shallop, and even throw part of their bread overboard, because it hindered them from clearing themselves of the water, which their vessel began to make very fast. That night it rained most terribly, which, though it gave them much trouble, afforded them hopes that it would prove a great relief to the people they had left behind them on the islands. The wind began to sink on the 11th; and as it blew from the west-south-west, they continued their course to the north, the sea running still so high that it was impossible to approach the shore. On the 12th, they had an observation, by which they found themselves in the latitude of 27°; they sailed with a south-east wind all that day along the coast, which they found so steep that there was no getting on shore, inasmuch as there was no creek or low land without the rocks, as is commonly observed on sea-coasts; which gave them the more pain because within land the country appeared very fruitful and pleasant. They found themselves on the 13th in the latitude of 25° 40′; by which they discovered that the current set to the north. They were at this time over against an opening; the coast lying to the north-east, they continued

a north course, but found the coast one continued rock of red color all of a height, against which the waves broke with such force that it was impossible for them to land.

The wind blew very fresh in the morning on the 14th, but towards noon it fell calm; they were then in the height of 24°, with a small gale at east, but the tide still carried them further north than they desired, because their design was to make a descent as soon as possible; and with this view they sailed slowly along the coast, till, perceiving a great deal of smoke at a distance, they rowed towards it as fast as they were able, in hopes of finding men, and water, of course. When they came near the shore, they found it so steep, so full of rocks, and the sea beating over them with such fury, that it was impossible to land. Six of the men, however, trusting to their skill in swimming, threw themselves into the sea and resolved to get on shore at any rate, which with great difficulty and danger they at last effected, the boat remaining at anchor in twenty-five fathoms water. The men on shore spent the whole day in looking for water; and while they were thus employed, they saw four men, who came up very near; but one of the Dutch sailors advancing towards them, they immediately ran away as fast as they were able, so that they were distinctly seen by those in the boat. These people were black savages, quite naked.

The sailors, finding no hopes of water on all the coast, swam on board again, much hurt and wounded by their being beat by the waves upon the rocks; and as soon as they were on board, they weighed anchor,

and continued their course along the shore, in hopes of finding some better landing-place.

On the 25th, in the morning, they discovered a cape, from the point of which there ran a ridge of rocks, a mile into the sea, and behind it another ridge of rocks. They ventured between them as the sea was pretty calm; but finding there was no passage, they soon returned. About noon they saw another opening, and the sea being still very smooth, they entered it, though the passage was very dangerous, inasmuch as they had but two feet water, and the bottom full of stones, the coast appearing a flat sand for about a mile. As soon as they got on shore they fell to digging in the sand, but the water that came into their wells was so brackish that they could not drink it, though they were on the very point of choking for thirst. At last, in the hollows of the rocks, they met with considerable quantities of rain-water, which was a great relief to them, since they had been for some days at no better allowance than a pint a-piece. They soon furnished themselves in the night with about eighty gallons, perceiving, in the place where they landed, that the savages had been there lately, by a large heap of ashes and the remains of some cray-fish.

On the 16th, in the morning, they returned on shore, in hopes of getting more water, but were disappointed; and having now time to observe the country, it gave them no great hopes of better success, even if they had travelled farther within land, which appeared a thirsty, barren plain, covered with ant-hills, so high that they looked afar off like the huts of negroes; and at the same time they were plagued with flies, and those in

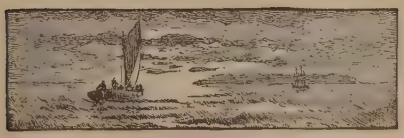
such multitudes that they were scarce able to defend themselves. They saw at a distance eight savages, with each a staff in his hand, who advanced towards them within musket-shot; but as soon as they perceived the Dutch sailors moving towards them, they fled as fast as they were able. It was by this time about noon, and, perceiving no appearance either of getting water, or entering into any correspondence with the natives, they resolved to go on board and continue their course towards the north, in hopes, as they were already in the latitude of 21° 17′, they might be able to find the river of Jacob Remmescens; but the wind veering about to the north-east, they were not able to continue longer upon that coast, and therefore reflecting that they were now above one hundred miles from the place where they were shipwrecked, and had scarce as much water as would serve them in their passage back, they came to a settled resolution of making the best of their way to Batavia, in order to acquaint the Governor-General with their misfortunes, and to obtain such assistance as was necessary to get their people off the coast.

On the 17th they continued their course to the north-east, with a good wind and fair weather; the 18th and 19th it blew hard, and they had much rain; on the 20th they found themselves in 19° 22′; on the 22d they had another observation, and found themselves in the height of 16° 10′, which surprised them very much, and was a plain proof that the current carried them northwards at a great rate; on the 27th it rained very hard, so that they were not able to take an observation; but towards noon they saw, to their great satisfaction, the coasts of

Java, in the latitude of 8°, at the distance of about four or five miles. They altered their course to west-north-west, and towards evening entered the gulf of an island very full of trees, where they anchored in eight fathoms water, and there passed the night; on the 28th, in the morning, they weighed, and rowed with all their force, in order to make the land, that they might search for water, being now again at the point of perishing for thirst. Very happily for them, they were no sooner on shore than they discovered a fine rivulet at a small distance, where, having comfortably quenched their thirst, and filled all their casks with water, they about noon continued their course for Batavia.

On the 29th, about midnight, in the second watch, they discovered an island, which they left on their starboard. About noon they found themselves in the height of 6° 48′. About three in the afternoon they passed between two islands, the westernmost of which appeared full of cocoa-trees. In the evening they were about a mile from the south point of Java, and in the second watch exactly between Java and the Isle of Princes. The 30th, in the morning, they found themselves on the coast of the last-mentioned island, not being able to make above two miles that day. On July 1st the weather was calm, and about noon they were three leagues from Dwaersindenwegh, that is, Thwart-the-way Island; but towards the evening they had a pretty brisk wind at north-west, which enabled them to gain that coast. On the 2d, in the morning, they were right against the island of Topershotien, and were obliged to lie at anchor till eleven o'clock, waiting for the sea-breeze, which, however, blew so faintly that

they were not able to make above two miles that day. About sunset they perceived a vessel between them and Thwart-the-way Island, upon which they resolved to anchor as near the shore as they could that night, and there await the arrival of the ship. In the morning they went on board her, in hopes of procuring arms for their defence, in case the inhabitants of Java were at war with the Dutch. They found two other ships in company, on board one of which was Mr. Ramburg, counsellor of the Indies. Captain Pelsart went immediately on board his ship, where he acquainted him with the nature of his misfortune, and went with him afterwards to Batavia.



EXPLORING IN THE SOUTH SEAS

THE VOYAGE OF DAMPIER

Captain William Dampier is an interesting, but not altogether admirable, figure in the history of great discoveries. From the age of sixteen he led a wild life upon the ocean, and his adventures took him to almost every corner of the world. The companion of buccaneers, pirates and rascals of every degree, as a sailor intemperate, foul-mouthed and abusive, as a commander ignorant of discipline, accused of dishonesty, cruelty and cowardice, Dampier nevertheless performed great services for his generation, and left records and observations which are still valuable. He was an admirable observer of natural phenomena, recording his impressions in a clear, easy, homely, common-sense style. His surveys and charts were full and accurate; and his dogged determination to keep and preserve his journal through all the hardships, dangers and temptations of his varied career, deserves appreciation. The published accounts of his early bucaneering voyages made him famous; and solely on the ground of his scientific and literary merits, certainly not for his character, which was notorious, in 1698 he was appointed to command the Roebuck on a government exploring expedition into the waters of the southern Pacific, and along the coast of New Holland, which he had previously visited. He sailed from England in January, 1699, and sighted the western coast of New Holland, or Australia, on July 26. During August he searched along the coast, finding no convenient harbor or river, and unable to get water or provisions. The following pages give his own account of his experiences from this time until his departure for the island of Timor, to the northward.

EXPLORING IN THE SOUTH SEAS

(From an Account of New Holland and the Adjacent Islands.)

By CAPTAIN WILLIAM DAMPIER.

WE were now on the inner side of the island, on whose outside is the Bluff point. We rode a league from the island, and I presently went ashore and carried shovels to dig for water, but found none. There grow here two or three sorts of shrubs, one just like rosemary, and therefore I called this Rosemary Island; it grew in great plenty here, but had no smell. Some of the other shrubs had blue and yellow flowers; and we found two sorts of grain like beans; the one grew on bushes, the other on a sort of creeping vine that runs along on the ground, having very thick broad leaves, and the blossom like a bean blossom, but much larger and of a deep red color, looking very beautiful. We saw here some cormorants, gulls, crab-catchers, etc., a few small land birds, and a sort of white parrot, which flew a great many together. We found some shell-fish, viz., limpets, periwinkles, and abundance of small oysters growing on the rocks, which were very sweet. In the sea we saw some green turtle,

many sharks, and abundance of water-snakes of several sorts and sizes. The stones were all of rusty color, and ponderous.

We saw smoke on an island three or four leagues off, and here also the bushes had been burned, but we found no other sign of inhabitants. It was probable that on the island where the smoke was there were inhabitants, and fresh water for them. In the evening I went aboard, and consulted with my officers whether it was best to send thither, or to search among any other of these islands with my boat, or else go from hence and coast along shore with the ship, till we could find some better place than this was to ride in, where we had shoal water and lay exposed to winds and tides. They all agreed to go from hence, so I gave orders to weigh in the morning as soon as it should be light, and to get out with the land breeze.

Accordingly, August 23rd, at five in the morning, we ran out, having a pretty fresh land breeze at south-south-east. By eight o'clock we were got out, and very seasonably, for before nine the sea breeze came on us very strong, and increasing, we took in our topsails and stood off under two courses and a mizzen, this being as much sail as we could carry. The sky was clear, there being not one cloud to be seen, but the horizon appeared very hazy, and the sun at setting the night before, and this morning at rising, appeared very red. The wind continued very strong till twelve, then it began to abate; I have seldom met with a stronger breeze. These strong sea breezes lasted thus in their turns three or four days. They sprang up with the sunrise; by nine o'clock they were very strong, and

so continued till noon, when they began to abate; and by sunset there was little wind, or a calm, till the land breezes came, which we should certainly have in the morning about one or two o'clock. The land breezes were between the south-south-west and south-south-east: the sea breezes between the east-north-east and north-north-east. In the night while calm, we fished with hook and line, and caught good store of fish, viz., snappers, breams, old-wives, and dog-fish. When these last came we seldom caught any others; for if they did not drive away the other fish, yet they would be sure to keep them from taking our hooks, for they would first have them themselves, biting very greedily. We caught also monk-fish, of which I brought home the picture.

On the 25th of August we still coasted along shore, that we might the better see any opening; kept sounding, and had about twenty fathom, clean sand. The 26th day, being about four leagues off shore, the water began gradually to shallow from twenty to fourteen fathom. I was edging in a little towards the land, thinking to have anchored; but presently after the water decreased almost at once, till we had but five fathom. I durst, therefore, adventure no farther, but steered out the same way that we came in, and in a short time had ten fathom (being then about four leagues and a half from the shore), and even soundings. I steered away east-north-east, coasting along as the land lies. This day the sea breezes began to be very moderate again, and we made the best of our way along shore, only in the night edging off a little for fear of shoals. Ever since we left Shark's

Bay we had fair clear weather, and so for a great while still.

The 27th day we had twenty fathom water all night, yet we could not see land till one in the afternoon from our topmast-head. By three we could just discern land from our quarter-deck; we had then sixteen fathom. The wind was at north, and we steered east-by-north, which is but one point in on the land; yet we decreased our water very fast, for at four we had but nine fathom, the next cast but seven, which frightened us; and we then tacked instantly and stood off, but in a short time the wind coming at north-west and west-north-west, we tacked again and steered north-north-east, and then deepened our water again, and had all night from fifteen to twenty fathom.

The 28th day we had between twenty and forty fathom. We saw no land this day, but saw a great many snakes and some whales. We saw also some boobies and noddy-birds, and in the night caught one of these last. It was of another shape and color than any I had seen before. It had a small long bill, as all of them have, flat feet like ducks' feet, its tail forked like a swallow, but longer and broader, and the fork deeper than that of the swallow, with very long wings; the top or crown of the head of this noddy was coal-black, having also small black streaks round about and close to the eyes; and round these streaks on each side, a pretty broad white circle. The breast, belly, and under part of the wings of this noddy were white, and the back and upper part of its wings of a faint black or smoke color. Noddies are seen in most places between the tropics, as well in the East Indies and on the

coast of Brazil, as in the West Indies. They rest ashore at night, and therefore we never see them far at sea, not above twenty or thirty leagues, unless driven off in a storm. When they come about a ship they commonly perch in the night, and will sit still till they are taken by the seamen. They build on cliffs against the sea, or rocks.

The 30th day, being in latitude 18° 21′, we made the land again, and saw many great smokes near the shore; and having fair weather and moderate breezes, I steered in towards it. At four in the afternoon I anchored in eight fathom water, clear sand, about three leagues and a half from the shore. I presently sent my boat to sound nearer in, and they found ten fathom about a mile farther in, and from thence still farther in the water decreased gradually to nine, eight, seven, and at two miles distance to six fathom. This evening we saw an eclipse of the moon, but it was abating before the moon appeared to us; for the horizon was very hazy so that we could not see the moon till she had been half an hour above the horizon; and at two hours twenty-two minutes after sunset, by the reckoning of our glasses, the eclipse was quite gone, which was not of many digits. The moon's centre was then 33° 40′ high.

The 31st of August, betimes in the morning, I went ashore with ten or eleven men to search for water. We went armed with muskets and cutlasses for our defence, expecting to see people there, and carried also shovels and pickaxes to dig wells. When we came near the shore we saw three tall, black, naked men on the sandy bay ahead of us; but as we rowed in, they went away.

When we were landed, I sent the boat with two men in her to lie a little from the shore at an anchor, to prevent being seized; while the rest of us went after the three black men, who were now got on the top of a small hill about a quarter of a mile from us, with eight or nine men more in their company. They, seeing us coming, ran away. When we came on the top of the hill where they first stood, we saw a plain savannah, about half a mile from us, farther in from the sea. There were several things like hay-cocks standing in the savannah, which at a distance we thought were houses, looking just like the Hottentots' houses at the Cape of Good Hope: but we found them to be so many rocks. We searched about these for water, but could find none, nor any houses, nor people, for they were all gone. Then we turned again to the place where we landed, and there we dug for water.

WENT ASHORE TO SEARCH FOR WATER.

While we were at work there came nine or ten of the natives to a small hill a little way from us,

and stood there menacing and threatening us and making a great noise. At last one of them came towards us, and the rest followed at a distance. I went out to meet him, and came within fifty yards of him, making to him all the signs of peace and friendship I could, but then he ran away, neither would they any of them stay for us to come nigh them, for we tried two or three times. At last I took two men with me, and went in the afternoon along by the seaside, purposely to catch one of them, if I could, of whom I might learn where they got their fresh water. There were ten or twelve of the natives a little way off, who, seeing us three going away from the rest of our men, followed us at a distance. I thought they would follow us, but there being for awhile a sandbank between us and them, that they could not then see us, we made a halt, and hid ourselves in a bending of the sand-bank. They knew we must be thereabouts, and being three or four times our numbers, thought to seize us. So they dispersed themselves, some going to the seashore, and others beating about the sand-hills. We knew by what rencounter we had had with them in the morning that we could easily out-run them, so a nimble young man that was with me, seeing some of them near, ran towards them; and they for some time ran away before him, but he soon overtaking them, they faced about and fought him. He had a cutlass and they had wooden lances, with which, being many of them, they were too hard for him. When he first ran towards them I chased two more that were by the shore; but fearing how it might be with my young man, I turned back quickly and went to the top of a sand-hill, whence I saw him near

me, closely engaged with them. Upon their seeing me, one of them threw a lance at me, that narrowly missed me. I discharged my gun to scare them, but avoided shooting any of them, till finding the young man in great danger from them, and myself in some; and that though the gun had a little frightened them at first, yet they had soon learnt to despise it, tossing up their hands and crying, "pooh, pooh, pooh," and coming on afresh with a great noise, I thought it high time to charge again, and shoot one of them, which I did. The rest, seeing him fall, made a stand again, and my young man took the opportunity to disengage himself and come off to me: my other man also was with me, who had done nothing all this while, having come out unarmed, and I returned back with my men, designing to attempt the natives no farther, being very sorry for what had happened already. They took up their wounded companion; and my young man, who had been struck through the cheek by one of their lances, was afraid it had been poisoned, but I did not think that likely. His wound was very painful to him, being made with a blunt weapon; but he soon recovered of it.

Among the New Hollanders, whom we were thus engaged with, there was one who by his appearance and carriage, as well in the morning as this afternoon, seemed to be the chief of them, and a kind of prince or captain among them. He was a young brisk man, not very tall, nor so personable as some of the rest, though more active and courageous: he was painted (which none of the rest were at all) with a circle of white paste or pigment (a sort of lime, as we thought) about his eyes, and a white streak down his nose, from

his forehead to the tip of it: and his breast and some part of his arms were also made white with the same paint; not for beauty or ornament, one would think, but as some wild Indian warriors are said to do, he seemed thereby to design the looking more terrible; this his painting adding very much to his natural deformity; for they all of them have the most unpleasant looks and the worst features of any people that I ever saw, though I have seen great variety of savages. These New Hollanders were probably the same sort of people as those I met with on this coast in my voyage round the world, for the place I then touched at was not above forty or fifty leagues to the north-east of this, and these were much the same blinking creatures (here being also abundance of the same kind of flesh-flies teasing them), and with the same black skins, and hair frizzled, tall and thin, &c. as those were: but we had not the opportunity to see whether these, as the former, wanted two of their fore-teeth.

We saw a great many places where they had made fires, and where there were commonly three or four boughs stuck up to windward of them; for the wind (which is the sea-breeze), in the day-time blows always one way with them, and the land-breeze is but small. By their fire-places we should always find great heaps of fish-shells of several sorts; and it is probable that these poor creatures here lived chiefly on the shell-fish, as those I before described did on small fish, which they caught in wires or holes in the sand at low water. These gathered their shell-fish on the rocks at low water but had no wires (that we saw), whereby to get any other sorts of fish; as among the former I saw not

any heaps of shells as here, though I know they also gathered some shell-fish. The lances also of those were such as these had; however, they being upon an island, with their women and children, and all in our power, they did not there use them against us, as here on the continent, where we saw none but some of the men under head, who came out purposely to observe us. We saw no houses at either place, and I believe they have none, since the former people on the island had none, though they had all their families with them.

Upon returning to my men I saw that though they had dug eight or nine feet deep, yet they found no water. So I returned aboard that evening, and the next day, being September 1st, I sent my boatswain ashore to dig deeper, and sent the seine with him to catch fish. While I stayed aboard I observed the flowing of the tide, which runs very swift here, so that our nun-buoy would not bear above the water to be seen. It flows here (as on that part of New Holland I described formerly) about five fathom; and here the flood runs south-east by south till the last quarter; then it sets right in towards the shore (which lies here south-south-west and north-north-east) and the ebb runs north-west by north. When the tides slackened we fished with hook and line, as we had already done in several places on this coast; on which in this voyage hitherto we had found but little tides; but by the height, and strength, and course of them hereabouts, it should seem that if there be such a passage or strait going through eastward to the great South Sea, as I said one might suspect, one would expect to find the mouth of it

somewhere between this place and Rosemary Island, which was the part of New Holland I came last from.

Next morning my men came aboard and brought a runlet of brackish water which they had got out of another well that they dug in a place a mile off, and about half as far from the shore; but this water was not fit to drink. However, we all concluded that it would serve to boil our oatmeal, for burgoo, whereby we might save the remains of our other water for drinking, till we should get more: and accordingly the next day we brought aboard four hogsheads of it: but while we were at work about the well we were sadly pestered with the flies, which were more troublesome to us than the sun, though it shone clear and strong upon us all the while very hot. All this while we saw no more of the natives, but saw some of the smoke of some of their fires at two or three miles distance.

The land hereabouts was much like the part of New Holland that I formerly described; it is low, but seemingly barricaded with a long chain of sand-hills to the sea, that lets nothing be seen of what is farther within land. At high water the tides rising so high as they do, the coast shows very low: but when it is low water it seems to be of an indifferent height. At low water-mark the shore is all rocky, so that then there is no landing with a boat; but at high water a boat may come in over those rocks to the sandy bay, which runs all along on this coast. The land by the sea for about five or six hundred yards is dry and sandy soil, bearing only shrubs and bushes of divers sorts. Some of these had at this time of the year, yellow flowers or blossoms, some blue, and some white;

most of them of a very fragrant smell. Some had fruit like peascods, in each of which there were just ten small peas; I opened many of them, and found no more nor less. There are also here some of that sort of bean which I saw at Rosemary Island: and another sort of small red hard pulse, growing in cods also, with little black eyes like beans. I know not their names, but have seen them used often in the East Indies for weighing gold; and they make the same use of them at Guinea, as I have heard, where the women also make bracelets with them to wear about their arms. These grow on bushes; but here are also a fruit like beans growing on a creeping sort of shrub-like vine. There was a great plenty of all these sorts of cod-fruit growing on the sand-hills by the seaside, some of them green, some ripe, and some fallen on the ground: but I could not perceive that any of them had been gathered by the natives; and might not probably be wholesome food.

The land farther in, that is, lower than what borders on the sea, was so much as we saw of it, very plain and even; partly savannahs and partly woodland. The savannahs bear a sort of thin coarse grass. The mould is also a coarser sand than that by the seaside, and in some places it is clay. Here are a great many rocks in the large savannah we were in, which are five or six feet high, and round at top like a hay-cock, very remarkable; some red and some white. The woodland lies farther in still, where there were divers sorts of small trees, scarce any three feet in circumference, their bodies twelve or fourteen feet high, with a head of small knibs or boughs. By the sides of the creeks,

especially nigh the sea, there grow a few small black mangrove trees.

There are but few land animals. I saw some lizards; and my men saw two or three beasts like hungry wolves, lean like so many skeletons, being nothing but skin and bones; it is probable that it was the foot of one of those beasts that I mentioned as seen by us in New Holland. We saw a raccoon or two, and one small speckled snake.

The land fowls that we saw here were crows, just such as ours in England, small hawks and kites, a few of each sort: but here are plenty of small turtle doves, that are plump, fat, and very good meat. Here are two or three sorts of smaller birds, some as big as larks, some less; but not many of either sort. The sea-fowl are pelicans, boobies, noddies, curlews, sea-pies, etc., and but few of these.

The sea is plentifully stocked with the largest whales that I ever saw; but not to compare with the vast ones of the Northern Seas. We saw also a great many green turtle, but caught none, here being no place to set a turtle net in; there being no channel for them, and the tides running so strong. We saw some sharks and parracoots; and with hooks and lines we caught some rock-fish and old-wives. Of shell-fish, here were oysters both of the common kind for eating, and of the pearl kind; and also whelks, conchs, muscles, limpets, periwinkles, etc., and I gathered a few strange shells, chiefly a sort not large, and thick-set all about with rays or spikes growing in rows.

And thus having ranged about a considerable time upon this coast, without finding any good fresh water

or any convenient place to clean the ship, as I had hoped for; and it being moreover the height of the dry season, and my men growing scorbutic for want of refreshments, so that I had little encouragement to search further, I resolved to leave this coast, and accordingly in the beginning of September set sail towards Timor.

DISCOVERY OF TANGANYIKA LAKE

IN EASTERN AFRICA

In December, 1856, an exploring party under command of Captain Richard Burton sailed in the East India Company's sloop Elphinstone from Bombay to Zanzibar, arriving four days before Christmas. Burton had invited Captain J. H. Speke, a famous sportsman, botanist, geologist and explorer, to join him in the expedition. Three years earlier the two brave travellers had been associated in a memorable visit to the Somali country, in Eastern Africa near the Arabian Sea. The Royal Geographical Society had instructed Burton to penetrate inland from the east coast of Africa, and make the best way possible to the reputed lake Nyassa, which they were to explore, with the country roundabout. Lake Nyassa, however, lay further to the south than Burton and Speke adventured; and Dr. Livingstone discovered its location a few years later. Other triumphs were in store for the two former travellers. After spending six months in examining the coast in order to determine the best line of march, they started from Kaolé in June, 1857. They proceeded southwest to the town of Zungamoro, then turned northwest through Ugogo and Ukimba to Kazeh. Here they were encouraged by hearing from an Arab trader, Sheik Snay, of three vast inland lakes, one of which was doubtless that which they sought. Moving slowly, owing to Burton's illness, they at last reached Kawelt, on the eastern shore of a great sheet of water, in January, 1858. They had discovered Lake Tanganyika. In the following selection Captain Burton describes his first sight of the lake.

DISCOVERY OF TANGANYIKA LAKE

By CAPTAIN SIR RICHARD BURTON.

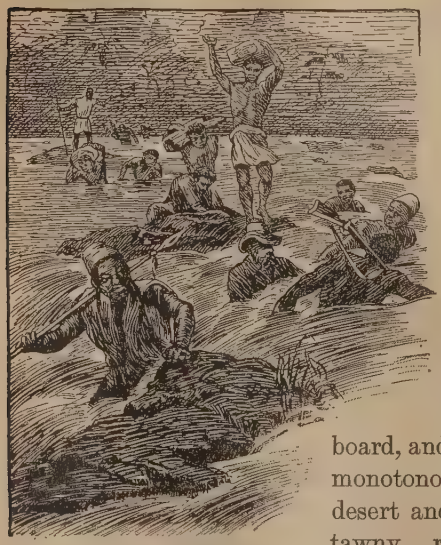
Sir Richard Burton.

A DESERT march, similar to the stage last travelled, led us to the Unguwwe River, a shallow, muddy stream, girt in, as usual, by dense vegetation; and we found a fine large kraal on its left bank. After a cold and rainy night we resumed our march by fording the Unguwwe. Then came the weary toil of fighting through tiger and spear grass, with reeds, rushes, a variety of ferns before unseen, and other lush and lusty growths, clothing a succession of rolling hills, monotonous swellings, where the descent was ever a reflection of the ascent. The paths were broken, slippery, and pitted with deep holes; along their sides, where the ground lay exposed to view, a conglomerate of ferruginous red clay — suggesting a resemblance to the superficies of Londa, as described by Dr. Livingstone — took the place of the granites and sandstones of the eastern countries, and the sinking of the land toward the lake became palpable. . . .

"What is that streak of light which lies below?" — "I am of the opinion," said Bombay, "that that is *the* water." . . .

Nothing, in sooth, could be more picturesque than this first view of the Tanganyika Lake, as it lay in the lap of the mountains, basking in the gorgeous tropical sunshine. Below and beyond a short foreground of rugged and precipitous hill-fold, down which the foot-path zig-zags painfully, a narrow strip of emerald green, never sere and marvellously fertile, shelves toward a ribbon of glistening yellow sand, here bordered by sedgy rushes, there cleanly and clearly cut by the breaking wavelets. Farther in front stretch the waters, an expanse of the lightest and softest blue, in breadth varying from thirty to thirty-five miles, and sprinkled by the crisp east wind with tiny crescents of snowy foam. The background in front is a high and broken wall of steel-colored mountain, here flecked and capped with pearly mist, there standing sharply pencilled against the azure air; its yawning chasms, marked by a deeper plum-color, fall toward dwarf hills of mound-like proportions, which apparently dip their feet in the wave. To the south, and opposite the long low point behind which the Malagarazi River discharges the red loam suspended in its violent stream, lie the bluff headlands and capes of Uguhha, and, as the eye dilates, it falls upon a cluster of outlying islets speckling a sea-horizon. Villages, cultivated lands, the frequent canoes of the fishermen on the waters, and on a nearer approach the murmurs of the waves breaking upon the shore, give a something of variety, of movement, of life to the landscape, which, like all the fairest prospects in these

regions, wants but a little of the neatness and finish of art — mosques and kiosks, palaces and villas, gardens and orchards — contrasting with the profuse lavishness and magnificence of nature, and diversifying the unbroken *coup d'œil* of excessive vegetation, to rival, if not to excel, the most admired scenery of the classic regions. The riant shores of this vast crevasse appeared doubly beautiful to me after the silent and spectral mangrove-creeks on the East African seaboard, and the melancholy, monotonous experience of desert and jungle scenery, tawny rock and sun-parched plain or rank herbage and flats of black mire. Truly it was a revel for soul and sight.



Fording the Unguwwe.

Ujiji — also called Manyofo, which appears, however, peculiar to a certain sultanat or district — is the name of a province, not, as has been represented, of a single town. It was first visited by the Arabs about 1840, ten years after they had penetrated to Unyamwezi; they found it conveniently situated as a mart

upon the Tanganyika Lake, and a central point where their depots might be established, and whence their factors and slaves could navigate the waters and collect slaves and ivory from the tribes upon its banks.

The bazaar at Ujiji is well supplied. Fresh fish of various kinds is always procurable, except during the violence of the rains: the people, however, invariably cut it up and clean it out before bringing it to market. Good honey abounds after the wet monsoon. By the favor of the chief, milk and butter may be purchased every day. Long-tailed sheep and well-bred goats, poultry and eggs — the two latter are never eaten by the people — are brought in from the adjoining countries: the Arabs breed a few Manilla ducks, and the people rear, but will not sell, pigeons.

A Native Warrior.

The Wajiji are a burly race of barbarians, far stronger than the tribes hitherto traversed, with dark skins, plain features, and straight, sturdy limbs: they are larger and heavier men than the Wanyamwezi, and the type, as it approaches Central Africa, becomes rather negro than negroid. Their feet and hands are large and flat, their voices are harsh and strident, and their looks as well as their manners are independent even to insolence. The women, who are held in high repute, resemble, and often excel, their masters in rudeness and violence; they think little in their cups of entering a stranger's hut, and of snatching up and car-

rying away an article which excites their admiration. Many of both sexes, and all ages, are disfigured by the small-pox — the Arabs have vainly taught them inoculation — and there are few who are not afflicted by boils and various eruptions.

The lakists are an almost amphibious race, excellent divers, strong swimmers and fishermen, and vigorous ichthyophagists all. At times, when excited by the morning coolness and by the prospect of a good haul, they indulge in a manner of merriment which resembles the gambols of sportive water-fowls: standing upright and balancing themselves in their hollow logs, which appear but little larger than themselves, they strike the water furiously with their paddles, skimming over the surface, dashing to and fro, splashing one another, urging forward, backing, and wheeling their craft, now capsizing, then regaining their position with wonderful dexterity. They make coarse hooks, and have many varieties of nets and creels. Conspicuous on the waters and in the villages is the dewa, or "otter" of Oman, a triangle of stout reeds, which shows the position of the net. A stronger kind, and used for the larger ground-fish, is a cage of open basket-work, provided like the former with a bait and two entrances. The fish once entangled cannot escape, and a log of wood used as a trimmer, attached to a float-rope of rushy plants, directs the fisherman.

Native Headdress.

The Wajiji . . . are taught by the example of their

chiefs to be rude, insolent, and extortionate; they demand beads even for pointing out the road; they will deride and imitate a stranger's speech and manner before his face; they can do nothing without a long preliminary of the fiercest scolding; they are as ready with a blow as with a word; and they may often be seen playing at "rough and tumble," fighting, pushing, and tearing hair, in their boats. A Mjiji uses his dagger or his spear upon a guest with little hesitation; he thinks twice, however, before drawing blood, if it will cause a feud. Their roughness of manner is dashed with a curious ceremoniousness. When the sultan appears among his people, he stands in a circle and claps his hands, to which all respond in the same way. Women courtesy to one another, bending the right knee almost to the ground. When two men meet, they clasp each other's arms with both hands, rubbing them up and down, and ejaculating for some minutes, "Nama sanga? nama sanga? — art thou well?" They then pass the hands down to the forearm, exclaiming, "Wâhke? wâhke? — how art thou?" and finally they clap palms at each other, a token of respect which appears common to these tribes of Central Africa.

Spirit Island.

DISCOVERY OF LAKE NGAMI

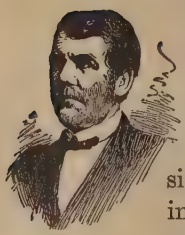
LIVINGSTONE'S FIRST EXPLORATION

In 1840 Dr. David Livingstone embarked for Cape Town on his self-imposed duty of devoting his life to the heathen blacks in the remote, unvisited regions of South Africa. He had educated himself to be a medical missionary, — one who should minister both to the bodies and to the souls of the savages. On his arrival at Cape Town he started for the interior by way of Algoa Bay, passing several years at Kuruman and other places. In 1843 he removed to Mabotsa, where he founded a missionary station, and during the next six years labored so uninterruptedly at his calling, — that in after years he expressed his regret because in spending all his time on the Bakwenas he had not spared one hour a day to play with his own children. He felt it his primary duty, however, not to settle down but to explore and open up the country, teaching as he went. If he could but find the great Lake Ngami, of which exaggerated reports had long been circulated, and which was pretty accurately located on the maps, this would greatly facilitate communication between the civilized coast and the barbarous interior. But the great Bakalihari Desert lay in the path, and no one had as yet been able to cross it from that direction. Livingstone resolved to brave all perils and make the attempt. Two young English sportsmen, Messrs. Oswell and Murray, joined him. On June 1, 1849, they left Koloben, and travelled along the borders of the desert, reaching at last the beautiful River Zuga, running northeast. From this point follows Dr. Livingstone's own simple account of his finding the great lake, and of the people who lived in the neighborhood.

DISCOVERY OF LAKE NGAMI

(From Journeys and Researches in South Africa.)

By DAVID LIVINGSTONE.



David Livingstone.

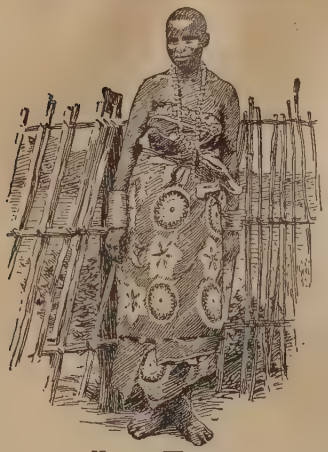
THE canoes of these inland sailors are truly primitive craft: they are hollowed out of the trunks of single trees by means of iron adzes; and, if the tree has a bend, so has the canoe. I like the frank and manly bearing of these men, and, instead of sitting in the wagon, preferred a seat in one of the canoes. I found they regarded their rude vessels as the Arab does his camel. They have always fires in them, and prefer sleeping in them while on a journey to spending the night on shore. "On land you have lions" — they say — "serpents, hyænas, and your enemies; but in your canoe, behind a bank of reed, nothing can harm you." Their submissive disposition leads to their villages being frequently visited by hungry strangers. We had a pot on the fire in the canoe by the way, and when we drew near the villages devoured the contents. When fully satisfied ourselves, I found we could all look upon any intruders with

perfect complacency, and show the pot in proof of having devoured the last morsel.

While ascending in this way the beautifully-wooded river, we came to a large stream flowing into it. This was the river Tamunak'le. I inquired whence it came. "Oh, from a country full of rivers — so many no one can tell their number — and full of large trees!" This was the first confirmation of statements I had heard from the Bakwains who had been with Sebituane, that the country beyond was not "the large sandy plateau" of the philosophers. The prospect of a highway capable of being traversed by boats to an entirely unexplored and very populous region, grew from that time forward stronger and stronger in my mind; so much so, that, when we actually came to the lake, this idea occupied such a large portion of my mental vision that the actual discovery seemed of but little importance. I find I wrote when the emotions caused by the magnificent prospects of the new country were first awakened in my breast, that they "might subject me to a charge of enthusiasm, a charge which I wished I

A Native.

deserved, as nothing good or great had ever been accomplished in the world without it."



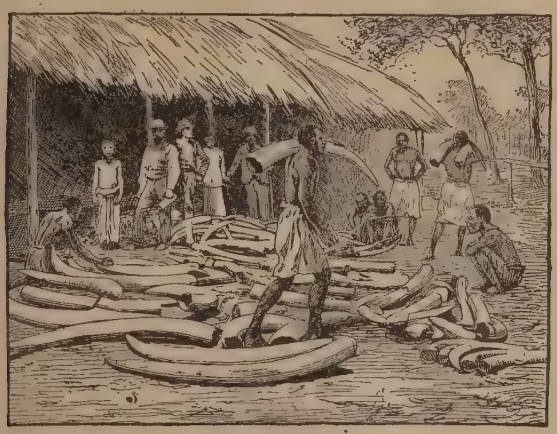
NATIVE WOMAN.

Twelve days after our departure from the wagons at Ngabisane we came to the north-east end of Lake Ngami: and on the 1st of August, 1849, we went down together to the broad part, and, for the first time, this fine-looking sheet of water was beheld by Europeans. The direction of the lake seemed to be N.N.E. and S.S.W. by compass.

My chief object in coming to the lake was to visit Sebituane, the great chief of the Makololo, who was reported to live some two hundred miles beyond. We had now come to a half-tribe of the Bamanwato, called Batauána. Their chief was a young man named Lechulatébe. Sebituane had conquered his father Morémi, and Lechulatébe received part of his education while a captive among the Bayeiye. His uncle, a sensible man, ransomed him; and, having collected a num-

ANTELOPES.

ber of families together, abdicated the chieftainship in favor of his nephew. As Lechulatébe had just come into power, he imagined that the proper way of showing his abilities was to act directly contrary to everything that his uncle advised. When we came, the uncle recommended him to treat us handsomely, therefore the hopeful youth presented us with a goat only. It ought to have been an ox. So I proposed



Ivory Store.

to my companions to loose the animal and let him go, as a hint to his master. They, however, did not wish to insult him. I, being more of a native, and familiar with their customs, knew that this shabby present was an insult to us. We wished to purchase some goats or oxen; Lechulatébe offered us elephants' tusks. "No, we cannot eat these; we want something to fill our stomachs." "Neither can I; but I hear you white men are all very fond of these bones, so I offer them;

I want to put the goats into my own stomach." A trader, who accompanied us, was then purchasing ivory at the rate of ten good large tusks for a musket worth thirteen shillings. They were called "bones," and I myself saw eight instances in which the tusks had been left to rot with the other bones where the elephant fell. The Batauána never had a chance of a market before; but in less than two years after our discovery, not a man of them could be found who was not keenly alive to the great value of the article.

Zebras on African Plains.

SOME WONDERS OF THE NORTH

(From Arctic Explorations.)

By ELISHA KENT KANE, M.D., U.S.N.

THE crowning expedition of the campaign was to attain the Ultima Thule of the Greenland shore, measure the waste that lay between it and the unknown West, and seek round the farthest circle of the ice for an outlet to the mysterious channel beyond. The scheme could not be carried out in its details. Yet it was prosecuted far enough to indicate what must be our future fields of labor, and to determine many points of geographical interest. Our observations were in general confirmatory of those which had been made by Mr. Bonsall; and they accorded so well with our subsequent surveys as to trace for us the outline of the coast with great certainty.

The most picturesque portion of the North Greenland coast is to be found after leaving Cape George Russell and approaching Dallas Bay. The red sandstones contrast most favorably with the blank white-

ness, associating the cold tints of the dreary Arctic landscape with the warm coloring of more southern lands. The seasons have acted on the different layers of the cliff so as to give them the appearance of jointed masonry, and the narrow line of greenstone at the top caps them with well-simulated battlements.

Esquimau Driver.

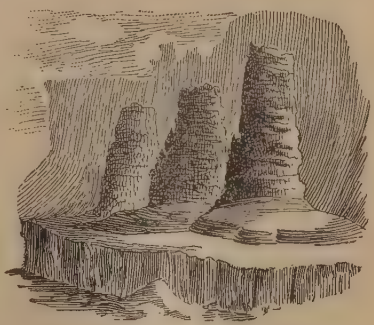
One of these interesting freaks of nature became known to us as the "Three Brother Turrets." The sloping rubbish at the foot of the coast-wall led up, like an artificial causeway, to a gorge that was steaming at noonday with the southern sun; while everywhere else the rock stood out in the blackest shadow. Just at the edge of this bright opening rose the dreamy semblance of a castle, flanked with triple towers, completely isolated and defined. These were the "Three Brother Turrets."

I was still more struck with another of the same sort, in the immediate neighborhood of my halting-ground beyond Sunny Gorge, to the north of latitude 79°. A single cliff of greenstone, marked by the slaty limestone that once encased it, rears itself from a crumbled base of sandstones, like the boldly-chiselled rampart of an ancient city. At its northern extremity, on the brink of a deep ravine which has worn its way

among the ruins, there stands a solitary column or minaret-tower, as sharply finished as if it had been cast for the Place Vendôme. Yet the length of the shaft alone is four hundred and eighty feet; and it rises on a plinth or pedestal itself two hundred and eighty feet high.

I remember well the emotions of my party as it first broke upon our view. Cold and sick as I was, I brought back a sketch of it, which may have interest for the reader, though it scarcely suggests the imposing dignity of this magnificent landmark. Those who are happily familiar with the writings of Tennyson, and have communed with his spirit in the solitudes of a wilderness, will apprehend the impulse that inscribed the scene with his name.

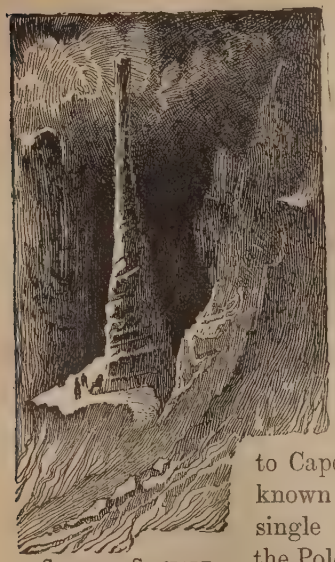
Still beyond this, comes the archipelago which bears the name of our brig, studded with the names of those on board of her who adhered to all the fortunes of the expedition; and at its eastern cape spreads out the Great Glacier of Humboldt. My recollections of this glacier are very distinct. The day was beautifully clear on which I first saw it; and I have a number of sketches made as we drove along in view of its magnificent face. They disappoint me, giving too much white surface and badly-fading distances, the



The "Three Brother Turrets."

grandeur of the few bold and simple lines of nature being almost entirely lost.

I will not attempt to do better by florid description. Men only rhapsodize about Niagara and the ocean. My notes speak simply of the "long ever-shining line of cliff diminished to a well-pointed wedge in the perspective"; and again, of "the face of glistening ice, sweeping in a long curve from the low interior, the facets in front intensely illuminated by the sun." But this line of cliff rose in solid glassy wall three hundred feet above the water-level, with an unknown unfathomable depth below it; and its curved face, sixty miles in length from Cape Agassiz to Cape Forbes, vanished into unknown space at not more than a single day's railroad travel from the Pole. The interior with which it communicated, and from which it issued, was an unsurveyed *mer de glace,* an ice-ocean, to the eye of boundless dimensions.



Stands a Solitary Column.

It was in full sight — the mighty crystal bridge which connects the two continents of America and Greenland. I say continents; for Greenland, however insulated it may ultimately prove to be, is in mass strictly continental. . . . A slackening of the ice to

the east enabled us after a while to lay our course for Hakluyt Island. We spread our canvas again, and reached the in-shore fields by one in the afternoon. We made our camp, dried our buffalo-skins, and sunned and slept away our fatigue.

We renewed our labors in the morning. Keeping inside the pack, we coasted along for the Cary Islands, encountering now and then a projecting floe, and either boring or passing around it, but making a satisfactory progress on the whole toward Lancaster Sound. But at the south point of Northumberland Island the pack arrested us once more. The seam by which we had come east lay between Whale Sound and Murchison Inlet, and the ice-drift from the southern of these had now piled itself in our way.

I was confident that I should find the "Eastern Water" if I could only reach Cape Parry, and that this would give me a free track to Cary Islands. I therefore looked anxiously for a fissure in the pack, and pressed our little craft into the first one that seemed at all practicable.

For the next three days we worked painfully through the half-open leads, making in all some fifteen miles to the south. We had very seldom room enough to row; but, as we tracked along, it was not difficult to escape nippings, by hauling up the boat on the ice. Still she received some hard knocks, and a twist or two that did not help her sea-worthiness; for she began to leak; and this, with the rain which fell heavily, forced us to bale her out every other hour. Of course, we could not sleep, and one of our little party fell sick with the unmitigated fatigue.

On the 29th, it came on to blow, the wind still keeping from the southwest, but cold and almost rising to a gale. We had had another wet and sleepless night, for the floes still baffled us by their capricious movements. But at three in the afternoon we had the sun again, and the ice opened just enough to tempt us. It was uncomfortable toil. We pushed forward our little weather-worn craft, her gunwales touching on both sides, till the toppling ice began to break down on us, and sometimes, critically suspended, met above our heads.

One of these passages I am sure we all of us remember. We were in an alley of pounded ice-masses, such as the receding floes leave when they have crushed the tables that were between them, and had pushed our way far enough to make retreat impossible, when the fields began to close in. There was no escaping a nip, for everything was loose and rolling around us, and the floes broke into hummock-ridges as they came together. They met just ahead of us, and gradually swayed in toward our boat. The fragments were already splitting off and spinning over us, when we found ourselves borne up by the accumulating rubbish, like the Advance in her winter drift; and, after resting for twenty minutes high out of water, quietly lowered again as the fields relaxed their pressure.

Generally, however, the ice-fields came together directly, and so gradually as to enable us to anticipate their contact. In such cases, as we were short-handed and our boat heavily laden, we were glad to avail ourselves of the motion of the floes to assist in lifting her upon them. We threw her across the lead by a small

pull of the steering-oar, and let her meet the approaching ice upon her bow. The effect, as we found in every instance, was to press her down forward as the floe advanced against her, and to raise her stern above the level of the other field. We held ourselves ready for the spring as she began to rise.

It was a time of almost unbroken excitement; yet I am not surprised, as I turn over the notes of my meagre diary, to find how little of stirring incident it records. The story of one day's strife with the ice-floes might almost serve for those which followed it: I remember that we were four times nipped before we succeeded in releasing ourselves, and that we were glad to haul upon the floes as often as a dozen times a day. We attempted to drag forward on the occasional fields; but we had to give it up, for it strained the boat so much that she was barely sea-worthy: it kept one man busy the last six days bailing her out.

On the 31st, at the distance of ten miles from Cape Parry, we came to a dead halt. A solid mass lay directly across our path, extending onward to our farthest horizon. There were bergs in sight to the westward, and by walking for some four miles over the moving floe in that direction, McGary and myself succeeded in reaching one. We climbed it to the height of a hundred and twenty feet, and, looking out from it with my excellent spy-glass to the south and west, we saw that all within a radius of thirty miles was a motionless, unbroken, and impenetrable sea.

I had not counted on this. Captain Inglefield found open water two years before at this very point. I myself met no ice here only seven days later in 1853.

Yet it was plain, that from Cape Combermere on the west side, and an unnamed bay immediately to the north of it, across to Hakluyt Island, there extended a continuous barrier of ice. We had scarcely penetrated beyond its margin.

We had, in fact, reached the dividing pack of the two great open waters of Baffin's Bay. The experience of the whalers and of the expedition ships that have traversed this region have made all of us familiar with that great expanse of open sea, to the north of Cape Dudley Diggs, which has received the name of the North Water. Combining the observations of Baffin, Ross, and Inglefield, we know that this sometimes extends as far north as Littleton Island, embracing an area of ninety thousand square miles. The voyagers I have named could not, of course, be aware of the interesting fact that this water is divided, at least occasionally, into two distinct bodies; the one comprehended between Lancaster and Jones's Sounds, the other extending from the point we had now reached to the upper pack of Smith's Straits. But it was evident to all of our party that the barrier which now arrested us was made up of the ices which Jones's Sound on the west and Murchison's on the east had discharged and driven together.

It was obvious that a further attempt to penetrate to the south must be hopeless till the ice-barrier before us should undergo a change. I had observed, when passing Northumberland Island, that some of its glacier-slopes were margined with verdure, an almost unfailing indication of animal life; and, as my men were much wasted by diarrhœa, and our supplies of food had be-

come scanty, I resolved to work my way to the island and recruit there for another effort.

Tracking and sometimes rowing through a heavy rain, we traversed the leads for two days, working eastward ; and on the morning of the third gained the open water near the shore. Here a breeze came to our aid, and in a couple of hours more we passed with now unwonted facility to the southern face of the island. . . .

I was greatly interested by a glacier that occupied the head of the moraine. It came down abruptly from the central plateau of the island, with an angle of descent of more than seventy degrees. I have never seen one that illustrated more beautifully the viscous or semi-solid movement of these masses. Like a well-known glacier of the Alps, it had two planes of descent ; the upper nearly precipitous for about four hundred feet from the summit; the lower of about the same height, but with an angle of some fifty degrees ; the two communicating by a slightly-inclined platform perhaps half a mile long. This ice was unbroken through its entire extent. It came down from the level of the upper country, a vast icicle, with the folds or waves impressed upon it by its onward motion undisturbed by any apparent fracture or crevasse. Thus it rolled onward over the rugged and contracting platform below, and thence poured its semi-solid mass down upon the plain. Where it encountered occasional knobs of rock it passed round them, bearing still the distinctive marks of an imperfect fluid obstructed in its descent ; and its lower fall described a dome, or, to use the more accurate simile of Forbes, a great outspread clam-shell of ice.

It seemed as if an interior ice-lake was rising above

the brink of the cliffs that confined it. In many places it could be seen exuding or forcing its way over the very crest of the rocks, and hanging down in huge icy stalactites seventy and a hundred feet long. These were still lengthening out by the continuous overflow, some of them breaking off as their weight became too great for their tenacity, others swelling by constant supplies from the interior, but splitting off fragmentary masses with an unremitting clamor. The plain below these cataractine glaciers was piling up with the debris; while torrents of the melted rubbish found their way, foaming and muddy, to the sea, carrying gravel and rocks along with them.

These ice-cascades, as we called them, kept up their din the whole night, sometimes startling us with a heavy booming sound, as the larger masses fell, but more generally rattling away like the random fires of a militia parade. On examining the ice of which they were made up, I found grains of *neve* larger than a walnut; so large, indeed, that it was hard to realize that they could be formed by the ordinary granulating processes of the winter snows. My impression is, that the surface of the plateau-ice, the *mer de glace* of the island, is made up of these agglomerated nodules, and that they are forced out and discarded by the advance of the more compact ice from higher levels.

THE SEVEN ISLANDS

(From the First Crossing of Spitzbergen.)

By SIR MARTIN CONWAY.

AT four A.M. on Aug. 5, we steamed away, on board the little Expres, for new lands and experiences of a new order. Melancholy indeed was the land we left behind, with its bleak purple shores, sloping up to hills all white with new-fallen snow from a level of about five hundred feet, and roofed with cloud. Bleared gleams of misty sunlight cast an added pallor on patches of the view. We thought the weather showed a tendency to clear, one of the many hopes, destined to disappointment, wherewith all our remaining time in these waters was filled. The Expres steamed along by the southern shore of the fjord, where the steep buttressed fronts of the hills were stained in patches on their sloping laps, as by upset paint-pots of vivid green — mossy areas varnished with wet. Running for the Fästningen Rock at the mouth of Green Harbor, where Gregory, Garwood, and Ted were collecting fossils, we passed the Orient Company's steamer Garonne on its way to Advent Bay, with friends on board whom we were sorry to miss.

The wind howled, and rain drove in our faces as we came to near Green Harbor Camp, and blew the whistle. The screaming thing bored the drums of our ears; but such was the turmoil of the air, that it was inaudible ten minutes' row to windward, where the tent was pitched behind a rock. Only the chance that Garwood was on a look-out revealed our presence. By noon all were on board, tightly packed into the little cabin. It was of a truncated V-shape, ten feet wide at its broadest. Down the midst was a passage cluttered up by a stove, a table, and a washstand. On either side was a narrow bench, and then a shelf on a higher level. A man might lie on this shelf, but he could not turn over, for the ceiling was too close down. Only in an area of about two square yards at the foot of the companion would there have been room to stand erect, but that too was filled with baggage. Everywhere else you bumped your head, even when sitting. We were fairly bruised all over, after a week's knocking about in such narrow and angular quarters. The five of us packed in somehow with all our baggage and bags. Two lay on each narrow bench with heads propped up against the ends and legs like overthrust strata. The fifth was either on the floor or on a shelf. The tents were roomy palaces compared with this cabin.

In such relative discomfort we headed for the sea, and were glad; for there was a sense of freedom now that bogs and ponies were well left behind, and new scenes were at hand. Once Dead Man's Cape was rounded a new world would open, and all the known hills be wrapped away. Round we went in the tumbling sea. The west front of Spitzbergen began to

unroll before us, the sea front of the long mass of hard archæan rocks, which keeps the rotten interior of the island from being swept away by the inroading ocean. A series of splintered ridges, striking inland, here abut upon the sea. Their own ends are presented toward Advent Bay. Broad glaciers flow lazily down between them to either shore. One glacier ends just north of the Dead Man. Farther up comes a second and wider glacier, with a great northern tributary. The wide crescent front of the second glacier loomed out of fog, its edge broken into blue-faced seracs. The ice-cliff, doubtless one hundred feet high, produced no impression of altitude, but only of width, and the glaciers of flatness and extension, a whole world removed from the appearance of Alpine glaciers. A mountain mass followed, unbroken by big glaciers as far as St. John's Bay. Low rain-clouds hung above the mist, and rain besoms swept across in front. The very universe seemed melting away.

We were now hurrying up the narrow sound, named Keerwyk, dividing Prince Charles's Foreland (named after Charles, Prince of Wales, afterwards King Charles I.) from Spitzbergen. The Foreland is a submerged mountain range with submarine banks of débris piled about its foot. The southern extremity, Saddle Point, seems to have been an island at the time of the discovery, but is now connected with the rest by a low flat, a few feet above sea level. Unluckily, all the mountains of the Foreland, some of the finest and loftiest in Spitzbergen, were buried in cloud. We could only see the mouths of gloomy valleys, and the bases of massive buttresses, solemn rock-forms dignified

in their mystery of cloud-envelopment. Our little boat, plunging into the short seas, or leaping on to them, seemed dancing with life; she had a rollicking way with her, and shook off the water from her back like a duck. Our pace was not more than eight knots, but we had a greater sense of swift movement than I ever before experienced at sea; water, air, and boat all seemed to be flying along. It was strange how little floating ice we met, though in close proximity to so many glaciers ending in the sea. It would seem that a wide seracked glacier front should be fringed with falling ice, but it was not so. The channel grew narrower; glaciers came down to the water on both sides, and fog fell upon the sea. We plunged into mere gray nothingness, and so passed the narrowest and very shallow part of the strait. A lift of the curtain displayed purple English Bay, with a steepish little glacier tumbling into it from the north. The heavy gray clouds seemed to walk on the sea, on columnar limbs of falling snow, thick, gray, and heavy, like the clouds. The Sound ends between the bold head of Fair Foreland (Vogelhoek) and the low spit named Quade Hook, where King's and Cross Bays open. They are divided by a fine mountain mass, dark and bold, with many valley-laps in it. Each bay enclosed a separate storm, so that the promontories only could be descried.

On we went, almost due north, now in the open sea, and once more in fog so thick that the land was seldom visible. Only three of the so-called Seven Icebergs were seen. They are low, wide, gently sloping glaciers of the normal type, some pushing crescent-fronted ice-cliffs into the sea, others with pudding-ends stopping

short of the waters on a débris flat. Thin splintered ridges divide one glacier from another, and all, I believe, drain the inland ice-sheet lying between the coast and Liefde Bay. Of the nature of this ice-sheet nothing is known. Looking up Cross Bay, we afterwards learned that deep valleys, separated by rugged ranges, penetrate far inland to the north. They are the orographical continuation of the high land east of Dutch Bay. It may be that these mountains form a backbone dividing the ice into two separate sheets. Large glaciers in Spitzbergen do not necessarily imply the existence of large, or indeed of any névés. An Alpine traveller finds the realization of this fact difficult. Seven such snouts in the Alps would prove the existence of a feeding snow-field as large as the whole Bernese Oberland. In Spitzbergen nothing of the kind need be postulated.

Of Magdalen Bay, called the fairest jewel of Arctic scenery, only the ghost loomed forth, robed in white and crowned with needle-pointed splinters of aspiring rock. Had it been more plainly discovered, we should not have greatly cared, for the tumbling of the boat and the jarring of the screw had by this time wrought weariness in all. We were counting the hours to a respite in smooth water. Presently, round a corner, came the narrow and impressive South Gat — once scene of the great whale fishery and entrance to the haven of the Dutch. A sunken rock in the midst of the way needs careful avoidance, but our skipper had already made this part of the voyage many times this year — conveying tourists to see Andrée's balloon. Full steam ahead therefore we went, disturbing countless flocks of little auks and with infinite fulmars swooping around. Thick fog

and a heavy fall of snow brought us to a halt as soon as we were in the smooth water of land-locked Dutch Bay, which is marked on the chart as Smeerenburg, though that name properly belonged not to the haven itself, but to the old Dutch whalers' settlement on the low east spit of Amsterdam Island. The true Smeerenburg, or Blubbertown, had but a brief period of prosperity, and has long been in ruins.

The west side of Smeerenburg Bay is formed by Amsterdam and Danes Islands. They are separated by Danes Gat, whilst South Gat divides Danes Island from Spitzbergen. Feeling our way through the fog, over water leaden-smooth, we came at length to the little enclosed bay in the south side of Danes Gat, where Andrée's ship Virgo was anchored close by the balloon-house, on the north shore of Danes Island, at the point where once stood the "Cookery of Harlingen." Here we, too, cast anchor, for the Expres needed coal, and we had good hope that the Virgo's captain would kindly supply us from his superfluity. Crossing in the dingey to call on Herr Andrée, we were struck by the intense greenness of the water, rendered all the more emphatic by contrast with a brilliant yellow stain on the rocks by the shore, the result of recent gas-manufacture for the balloon.

Assuredly few places in the world can be more utterly forlorn than this rockbound bay, frowned upon by bare hills, about whose bases angular débris are deeply piled; nothing in sight but barren islands and splintered glaciers, "with black air accompanied with damps and dreadful gloom." Snow lay deep down to the very margin of the sea, and a thick snowfall was at that

moment taking place. The north winds only "bursting their brazen dungeon, armed with ice and snow and hail and stormy gust and flaw," avail to fall direct upon this enclosed spot. But draughts at all times eddy round and round, and cause the snowflakes to dance together in columns like restless ghosts. Here it was that Mr. Arnold Pike built a small wooden house, wherein he passed a winter far from the haunts of men. The house was being utilized by the Swedes, who set up their strangely civilized-looking gas apparatus close alongside. Studley, after leaving us at Advent Bay, spent a whole month in Pike's house, waiting to see the balloon go up. Walkey immortalized him in a monumental outline on the door, — an unmistakable likeness!

Mr. J. Stadling of Stockholm, our companion on the Raftsund, extended a warm greeting to us on the Virgo, and conveyed Herr Andrée's invitation to go over the balloon-house with him. A few strokes took the boat to the little landing-stage, where Herr Andrée and the two intended companions of his proposed aerial flight joined us. We were shown how the gas was made, and the long silk pipe meandering amongst the stones to convey it into the balloon. The great distended sphere filled the roofless wooden house and bulged out above. Like all balloons, when seen near at hand, it appeared surprisingly large. It is related of a shy curate who had sat in absolute silence throughout a dinner at the squire's house, that with the coming of dessert he suddenly remarked, *à propos* of nothing, "The cuckoo is a larger bird than you'd suppose." The same general statement I maintain to be true of

balloons. They are all larger than you would suppose. There is here no need to describe Andrée's balloon. It has been described often enough. Interesting as it was to me, with all its compact contrivances, it was far less interesting than Andrée himself.

No one could see him and not be struck by the evident force and capacity of the man. In his presence the idea that any wavering of intention found place in his mind was inconceivable. Pestered as he had been for weeks by inquisitive visitors, he seemed on the defensive, and suspicious of criticism in every question. He had been told that his scheme was in every way impracticable. "They said I could not set up and inflate my balloon in this place. I have set it up and inflated it. They said it would not hold the gas for a sufficient length of time without leakage. It has now been inflated for ten days or more, and it does not leak. There were two little needle-point holes only, and those we easily mended. We have considered everything and provided against every accident, and now we are certain that, whenever the right wind blows, we can start without a hitch. Unfortunately, since July 15 (this was on Aug. 6) there has been no south wind. It is not enough for me that the wind should be from the right quarter. I must have a chance of decent weather, so that we may be able to see something. Now it is getting late. The Virgo is not insured after Aug. 20, so that, unless a good wind sets in soon, we must pack up and return to Sweden. It would have been better if we had been able to come up here earlier in the year, but we could not, for the balloon was not made in time. Our work, however, has not been wasted.

The experience we have gained will be valuable when we come back again next year, as I hope to do. We shall come earlier, and shall be able to get the balloon ready quicker. There is always plenty of south wind early in the season. Three days of a moderate wind, blowing approximately from the south, is all we need. After that the wind may blow how it pleases, it cannot help taking us towards some of the land that encircles the polar ocean. We can remain afloat for three weeks, and in that time, with any luck, we ought to be carried down to some habitable country."

Herr Andrée then invited me to climb to the top of the balloon, and see how the snow that was falling heavily was shed off the dome. The ascent was made by a kind of zigzag wooden staircase, forming a buttress to the balloon-house. There was little in the nature of banister, and the space between the steps was open. The steps were covered with fresh snow, or which my rubber-boots slipped about. I never felt less secure in my life. A slip at the top would have launched us straight into the air, a hundred feet above the ground.

The Virgo's captain placed five days' coal at the disposal of the Expres. We took it on board in barrels, and piled them along the narrow gangways, forming all the deck there was to the little boat. The weather was thick as ever when the anchor was raised, but this is a land that bad weather dignifies and adorns. The strong black ancient rock, broken into points and draped with whitest snow mantles, seemed able to defy alike raging sea and splitting frost. The mountains all around were of the same bold type, but at the foot of

those that form Amsterdam Island is a wide low spit of ground jutting out into the bay, and carrying the ruins and graves of what was Smeerenburg. This shore was well adapted for drawing up the carcasses of whales, killed either in the bay itself or in the neighboring seas. Here the blubber was cut from them and boiled down in one of the "tents" or factories, whose very foundations have long disappeared.

A heavy mist lay low down and cast leaden shadows upon the smooth water. Only the bases of the hills could be seen. On these the imagination was free to pile whatever mighty towers it pleased. It was easy to fill the scene with high-pooped Dutchmen riding at anchor, whilst the shore was thronged with busy crowds. For many thousands of men and women, in the palmy days of the whale fishery in the seventeenth century, annually resorted here to catch the fish or handle the produce of the fishery. Large glacier fronts protrude into the sea on the east coast of the bay. A blaze of white light, a true ice-blink, gleamed in the mist over the level glacier surface that comes down with almost imperceptible slope from the unexplored inland ice. All around was gray, — gray water, gray sky, gray rocks, — save for faint blue breaks in the glacier fronts, and one incredibly deep-blue castle of stranded ice, whose color, like a rich note of music, seemed to throb in and through the soft and tender harmony of gray.

Our first need was to steam due north and find the ice-pack. The last news we had of it was, that about July 28 its south margin was in latitude 81° 40′ N. But a strong north wind had been blowing continuously ever since, and there was unfortunately little doubt that the

ice had by now come much farther south. Out therefore into the mist and the heaving sea we hastened, past Foul Point and Vogelsang. Of this island, as well as of Cloven Cliff and the Norways, we had a clear view. They resemble, in structure and coloring, the other shores and islands of the neighborhood. It was their historic interest that affected me. How many Arctic explorers have sighted them — Phipps (with young Nelson), Scoresby, Franklin, Parry, Nordenskjöld, Leigh Smith, Lamont — oftener outposts of disappointment than of surprise! For in many years the ice-pack comes down to these islands and remains fixed against them week after week. How many skippers have in their turn climbed Cloven Cliff, and gazed toward north and east, only to find ice everywhere and no possible "lead"! Thus far, at any rate, the fortune of the year favored us; there was not a fragment of floating ice in sight.

In five hours' time, however, we ran into it, in latitude 80° 13′, and turned eastward along its edge, which forced us somewhat south at first, then bent away northward, so that after six hours' running we were in latitude 80° 28′, almost north of Verlegen Hook. Here the edge of the pack turned sharply to the south, and compelled a change of course. We ran along it for another hour or more, and then came to drift ice, broken up and scattered over the surface of the sea as far as Verlegen Hook itself. By twisting about, a way through was found into open water again, at the mouth of Hinloopen Strait, but the pack was not far off, and was unmistakably coming down on Verlegen Hook.

The broken ice-sheet that fills the Polar Sea, contin-

ually drifts from the northeast on to Spitzbergen. Divided into two parts by North-East-Land, it opens like two jaws, whereof the north usually closes upon Verlegen Hook, the south upon Wiche Land, where, subdividing, a branch goes to plug the south entrance of Hinloopen Strait, whilst the other jams up against Edge Land. Thus Verlegen Hook to the north, and the Ryk Yse Islands off Edge Land to the south, are frequently the limits beyond which vessels cannot pass. It seemed to be a mere question of hours before Verlegen Hook would be infested. The floating ice was already accumulating against the coast, and soon the gap separating the pack from the land would be filled.

Hereupon a difference of opinion arose on board. The skipper was for turning back. He said it was folly to go forward. The ice was coming down and we should be cut off. The Expres is an iron boat incapable of resisting the smallest blow from ice in water at freezing temperature. It would be difficult to avoid touching some of the many ice-blocks that dotted the sea in all directions. He wanted neither to lose his ship nor his life. The ice-master, Bottolfsen, on the other hand, was willing to go on. Twenty-four hours, he judged, would elapse before the ice could close on Verlegen Hook, and in twenty-four hours we might run to the Seven Islands, and see how the pack lay in that direction. Perhaps there might be open water, and we might get round North-East-Land. The matter was referred to me. I said "Go on," and on we went, in and out amongst the floating ice, pieces of all sizes — small blocks we might have hauled on board and flat floes big enough for a cricket match. Gradu-

ally the open water became larger, and in an hour or so we emerged into clear sea once more, and found the edge of the fast ice trending north, fringed by lines of large loose masses with tilted tables and blue mounds of crushed floes. A sail was seen ahead. It proved to be the stout-looking, new-built walrus-sloop, Lykken-prove of Tromsö. We came to and hailed her. The warmly clad crew and cheery captain assembled on deck. When our engines stopped, and we lay still on the now calm water, the silence of the great deep was almost oppressive. Through it the voices of Bottolfsen and the sloop's skipper rang, as might those of challenging heroes beneath the walls of listening Troy. We learned that, a fortnight before, the sloop had been hunting round the northeast corner of North-East-Land. Then the ice came down, and they were forced to run before it. Four days ago they passed the Seven Islands but little in advance of the ice, which by now had certainly reached them. Their catch had been poor. They had killed one bear, and filled ninety barrels with blubber — that was all.

We did not run directly for the islands, but headed to pass them to the west, hoping to steam round and find again the edge of the pack, which had bent away and left open sea all about us. If the north coast of Spitzbergen had seemed bleak, these islands, as we neared them, seemed yet bleaker, yet more desolate and aloof from man. First came Walden, an arête-crested mound of hardest rock, defying the inroads of the sea. Beyond it we saw, as one mass, the larger islands of Parry, Phipps, and Martens — all cliff-sided, bare, and lonely. The reader will find it hard to share

the emotions evoked by the sight of these islands in the mind of one to whom by much reading of books of Arctic travel, they had long become, if inaccessible and remote, yet definite realities, associated with the doings, the struggles, and the disappointments of great explorers, memorable in the annals of daring and human achievement. There they lay silent, cold, and still, under their pall of cloud and snow, with the gloom of the north enshrouding them. Hardly a bird skimmed the surface of the forsaken sea, wherein only ice-blocks floated. To the northwest, beyond the three larger islands, a few lonely rocks stood forth, joining clouds and sea — the two Table Islands and Ross Island — last outposts of land toward the Polar Ocean, which, a few miles farther, sinks to a depth of 1370 fathoms, as Nordenskjöld discovered.

We were destined not to reach the Table Islands; on approaching, we found them enveloped in the pack. The report of the Lykkenprove was true. We were hopelessly cut off from the east. The time had passed in which it would have been possible to advance far toward Giles Land. Accordingly, after again coming as close to the pack as we dared, in latitude 80° 39′, our greatest northing, the boat was put about, and headed for Walden, through a sea clear of ice, and of an incredible peacock-blue color. This was the island on which the Wellman expedition took refuge, when their steamer, the Ragnvald Jarl, was nipped in the ice and destroyed close to its shore on May 28, 1894. Bottolfsen had been ice-master to Mr. Wellman, and could tell many details about the adventures of the ill-fated expedition.

We passed round the north promontory, and came to, off a bay in the east shore. The sea behind the island being very calm, it was possible to land, so we lowered the boats and rowed ashore, glad to feel solid rock beneath our feet. Solid, indeed, are the red and gray rocks of Walden, foundation stones of the earth's first crust. Yet, hard though they be, the violence of Arctic weather avails to crumble their surface into a kind of rough sand, which can readily be scraped off by the boot. There is no soil on the island save in narrow gullies and chinks protected from wind. In such places, snow-beds also permanently linger. The shore is eaten away into little coves, intricately bent. The surface of the rock is scored into deep undulations of ridge and gully, and every yard of progress involves a scramble.

We made our way to the ruined framework of the Wellman hut, drawn by the resistless attraction of a human interest. Footprints in a steep gully piled with sand showed the way through it. They had been preserved beneath a covering of snow. Truth to tell, there was little enough to see— a mere framework of beams, the wreck of sleeping-bunks, floors, and doorways, a heap of coal, piles of withered-up potatoes and peas, foul remnants of old clothes, empty cartridges, a packet of photograph developer and such like rubbish. It was interesting to hear Bottolfsen's reminiscences. "When we opened the door one morning there was a big bear standing close to it, just where you are now. He seemed to be waiting for some one to come out. I caught sight of him in time and called to the skipper to look out. I only stopped him just in time, for the bear would have been on him in a moment. We shot

the bear. Perhaps this may have been his skull, though I don't think so — it is not large enough."

Strolling about, looking at the rubbish, I came upon what looked like a candle-end wrapped in paper. It seemed too hard for a candle, and I threw it violently on the rock at my feet, to see if it would break, for it was hard frozen. A yard or two farther on was a pile of similar objects. "What are these?" I asked. "Oh," said Bottolfsen, "those are part of the case of dynamite!" I did not try to break any more of them.

The back of the island's ridge afforded a fine view over sea and land. Clouds had lifted somewhat, and the larger islands more amply displayed the lonely grandeur of their weather-beaten snow-draped flanks. Even nearer at hand to the south were the crags of North-East-Land's North Cape, with the Castrens Islands by it, whilst far to the east Cape Wrede and Cape Platen lifted their bold fronts beneath the cold, white blink that showed where the fast ice bound the sea. It was a memorable view. We gazed at it, as men looking upon a world they will never see again. The little Expres lay still upon the calm water in the island's lee. She seemed impatient to be off, fearing the adventure of the ice, which was coming down with stealthy drift, nearer and nearer every hour.

NOTES

BALBOA, VASCO NUÑEZ DE. Spanish explorer and conqueror, born, 1475; beheaded in 1517. Joined an expedition to Darien in 1510. Set out in 1513 to find the great western ocean, and obtained the first sight of the Pacific from "a peak in Darien."

BARLOWE, CAPT. ARTHUR, navigator, born about 1550; died about 1620. Was sent out by Sir Walter Raleigh in 1584 on a voyage of discovery and colonization. Queen Elizabeth gave him a special charter. The expedition landed on Wocockin, the southernmost island in Pamlico Sound. After exploring the beautiful territory, they returned to England, naming it Virginia, in honor of the Virgin Queen, Elizabeth.

BURTON, SIR R. F., English traveller, author, Oriental scholar and linguist, born, 1821; died, 1890. He wrote "Personal Narrative of a Pilgrimage to Mecca," "First Footsteps in East Africa," "The Lake Regions of Central Africa," "The Nile Basin," "The City of the Saints," "Wanderings in West Africa," "Ultima Thule," and also works on Goa, Abbeokuta, Paraguay, Brazil, Syria, Zanzibar, Iceland, Bologna, and Midian. His wife, Lady Isabel Burton, was as intrepid a traveller as himself, and wrote two books, "Arabia, Egypt, India," and "The Inner Life of Syria."

CABOT, JOHN, a Venetian pilot and the discoverer of the mainland of North America, settled in Bristol, Eng., about 1472, where he died about 1498. It was in 1497 that, accompanied by his son, he sighted Cape Breton and Nova Scotia.

CÆSAR, JULIUS, Roman Emperor, born about 100 B.C.; assassinated, 44 B.C. He conquered and brought under Roman rule the whole of Eastern Europe, including Great Britain, as well as many other territories. He received the title of "Father of his Country," and was assassinated by Brutus when at the zenith of his power. He wrote much, but of all his works only the commentaries on the Gallic and the civil wars have come down to us. (Read Shakespeare's play, "Julius Cæsar.")

CARTIER, CAPT. JACQUES, a French navigator, born at St. Malo, 1494. Between 1534 and 1541 he made three voyages of discovery in North America. He landed in parts of the province of Quebec, and took possession of the country in the name of King Francis I., of France. The following year he explored and named the St. Lawrence River, and gave the name to Montreal. He returned to St. Malo, and settled there. The date of his death is not known.

CHAMPLAIN, S. DE, French governor of Canada, born in France, 1567; died, 1635; made his first voyage to Canada in 1603. In 1604–07 he explored the coasts, and in 1608 founded Quebec. In 1612 he was made governor; and in 1629 he was seized by the English and taken to England. He was liberated in 1632, and returned to Canada. He published several works, which were reprinted in four volumes at Quebec in 1870.

CHARNAY, C. J. DÉSIRÉ, French traveller, born, 1828; travelled extensively in Europe; and in 1857 set out for Mexico, and wrote his "History of Modern Monuments in Mexico." In 1860 he made another journey to that country, and the results of

his explorations there are contained in his "Ancient Cities of the New World." He also wrote "The Civilization of the Toltecs," and an "Indian Princess Before the Conquest."

CLARK, WILLIAM, American explorer, born, 1770; died, 1838. He entered the army, but his health broke down; he regained it by turning miner and trapper. He joined Capt. Meriwether Lewis on his famous exploring expeditions towards the Pacific. He was subsequently appointed superintendent of Indian affairs. Clark's Ford, a branch of the Missouri, is named in his honor, and Lewis and Clark County, in Montana, in memory of these two famous explorers.

COGSWELL, J. G., bibliographer, born, 1786; died, 1871. He was editor of "The New York Review" until 1842; was mainly instrumental in the creation of the Astor Library, New York; and was a frequent contributor to "Blackwood," "The North American Review," etc. On his visits to Europe he came in contact with most of the distinguished men of his century.

COLUMBUS, CHRISTOPHER, born at or near Genoa, in 1435 or 1436; died in 1506. His father was a wool-comber. At fourteen he went to sea; about 1470 he was wrecked in a sea-fight. He began to cherish the idea of reaching India by a westward route in 1474. It was not until 1492 that he set sail on his first expedition, with the result which we all know. He returned to Spain in 1493, and started on his second voyage the same year, returning in 1496. He set out again in 1498, and in 1499 was sent home in disgrace. His last great voyage was made in 1502–04.

DAMPIER, CAPT. WILLIAM, English navigator and hydrographer, born, 1652; died, 1715. Went early to sea. Sailed to Newfoundland, Jamaica, etc., and in 1679 joined a party of buccaneers, who ravaged the coast of the Isthmus of Darien. In 1683 he went on another expedition, returning to England in 1691, where he told the story of his adventures in his "Voyage Round the World." He continued his career of buccaneering adventure, and finally, poor and broken in spirit, he returned to England. After one more voyage—in the privateer which rescued Alexander Selkirk from the island of Juan Fernandez—he returned to London to die.

DE BOW, J. D. B., American statistician, born, 1820; died, 1867. He was for seven years in a commercial house. Graduated at Charleston in 1843. In 1845, he established his "Commercial Review." In 1853 he was appointed Superintendent of the Census. He compiled "An Encyclopædia of the Trade of the United States," and several volumes of statistics, as well as "The Southern States—their Agriculture, Commerce, etc."

DRAKE, SIR FRANCIS, the greatest of the English seamen of the time of Elizabeth, was born about 1540, and died at sea, 1596. He went to sea at an early age, and soon was fighting on the Spanish main. In 1585 he performed his famous feat of "singeing the king of Spain's beard," by burning and sinking his fleet in the harbor of Cadiz. The part he took in the destruction of the Armada every reader will recall.

DYER, THOMAS H., LL.D., English archeologist and historian, born, 1804; died, 1888. Was engaged in the West Indian trade, but afterward devoted himself to literature, classical antiquities, and particularly those of Rome, Pompeii, and Athens. He wrote "A Life of Calvin," "A History of Modern Europe," "History of the City of Rome," "History of the Kings of Rome," etc.

FRÉMONT, J. C., American explorer and soldier, born, 1813; died, 1890. He first entered the navy, and then became assistant engineer in the topographical corps. In 1838 he became assistant to the explorer Nicollet, and this decided his career. He went on the famous expedition which opened the way through the mountains to Oregon. He planted the American flag on the highest peak of the Rocky Mountains. On

successive voyages he explored the Great Salt Lake and its region. He explored the upper tributaries of the Columbia. On another the California Basin and coast. Then he fitted out an expedition to put a natural highway from the Valley of the Mississippi to the Pacific coast. He later on entered into politics. He served with great distinction in the Civil War, and it is said that he conceived the idea of iron-clad vessels. But it is impossible to record here one hundredth part of his active and useful career.

HAKLUYT, R., English writer on geography, born, 1553; died, 1616. When a boy he eagerly read narratives of voyages and travels, and continued to do so at the University of Oxford. He was there appointed lecturer on geography, and introduced the use of globes into English schools. He wrote "Divers Voyages Touching the Discovery of America" (1582); "Discourses Concerning Western Discoveries," 1584 (while chaplain to the English Embassy in Paris). On his return to England he spent much time in research, and published his "Principal Navigations," etc., in three vols. Then followed a supplement, called a "Selection of Curious, Rare, and Early Voyages." The Hakluyt Society, which took his name, is a society for the republishing of all the histories of the earlier voyages and travels.

HENNEPIN, FATHER LOUIS, explorer, born in Belgium about 1640; died, about 1701. Went to Canada as regimental chaplain in 1637, founded a convent in Frontenac, travelled through the great lakes to Mackinaw, descended the Illinois to its mouth, and then sailed up the Mississippi, was captured by Indians and held for eight months, was rescued and afterwards returned to Europe. He wrote "A Description of Louisiana," "The New Discovery of a Great Land," and "A New Journey in a Country greater than Europe." He knew the Indians well, and painted their manners vividly.

HUDSON, HENRY. Nothing is known of him until 1607, when he started to find a north-east passage. In his second voyage he reached Nova Zembla (1608). In his third he sailed from Amsterdam at the expense of the Dutch East India Company, discovered the mouth of the river which bears his name, and sailed up it for one hundred and fifty miles. On his last voyage, 1610, on the *Discoverie* he discovered Hudson Strait and Hudson Bay. His men mutinied because of insufficiency of food, and turned their captain and eight others adrift in a shallop, and they were never heard of more.

HUMBOLDT, F. H. ALEX., BARON VON, German traveller and naturalist, born, 1769; died, 1859. He was an educated, well-born German. In 1799 he started on a voyage of exploration in South America, and published a full account of it in the book from which our extract is taken. Later on he explored Central Asia, and published the results in a volume so called. The full account of his researches in South America occupies thirty volumes, and its preparation took him twenty years.

IRVING, WASHINGTON, born in New York, 1783; died, 1859. "The Father of American Literature." He wrote "Knickerbocker History of New York," "The Sketch-Book," which contains many delightful stories; so also do "Bracebridge Hall" and "Tales of a Traveller." He wrote, likewise, many more serious works, such as "The Life of Columbus," "Companions of Columbus," "The Conquest of Granada," "The Alhambra," etc., and Lives of George Washington and Oliver Goldsmith.

KANE, ELISHA KENT, Arctic explorer, born Philadelphia, 1820; died, 1867. Entered the navy as a surgeon, and visited China, the East Indies, Arabia, Egypt, western Europe, Africa, and Mexico. In 1850 he began his Arctic experiences, and in 1854 he published his account of "The United States Grinnell Expedition," to which he was attached as surgeon, naturalist, and historian. In 1853 he set out with the second expedition, and published the results in 1856 in two volumes; he died in the following year.

LASALLE, R. CAVELIER, French explorer, born, 1643; died, 1687; went to seek fortune in Canada in 1666, and was granted a tract of land on the island of Montreal. In

1669 he set out on a tour westward, to discover China, across the continent; discovered the Ohio, and reached the Illinois. He visited his native land in 1677, and in 1678 returned to a new plan of exploration, and succeeded in navigating the Mississippi to its mouth. Then he returned to Europe, whence he sailed for the Gulf of Mexico, but was unable to find the mouth of the Mississippi. Some of his followers who had a grudge against him shot him through the head.

LAYARD, SIR HENRY A., English traveller and diplomatist, born, 1817; studied law at sixteen. In 1839 he went on an overland journey to Ceylon; on his way he saw the ruins said to be on the site of Nineveh, and conceived the idea of exploring them. In 1845 he secured his first permit to excavate, and continued the work for some years. His most remarkable discoveries were described in "Nineveh and Its Remains," and in "Monuments of Nineveh," which gained him much honor. He later on went into political life, and held high office.

LEON, JUAN PONCE DE, Spanish discoverer, born, 1460; died, 1521; was a court page; sailed with Ovando to Hispaniola, in 1502. In 1510 became governor of Porto Rico, and conquered the whole island. His health broke down, and he set out to search for a fabled Fountain of Perpetual Youth. He found Florida, and took possession of large territory there. He failed to conquer the people, however, and retired to Cuba, where he died from the wound of a poisoned arrow.

LEWIS, MERIWETHER, American explorer, born, 1774; died, 1809. He early showed a taste for adventure. At twenty he volunteered in the militia to put down Shays' rebellion. In 1803 he, with Lieut. Wm. Clark, set out to explore the continent to the Pacific; and in 1805, after innumerable hardships, they saw the Pacific Ocean. They returned to St. Louis, exploring different parts on their way, travelling at least four thousand miles, which they reached after nearly two and a half years absence. He was afterwards appointed governor of Missouri.

LIVINGSTONE, DAVID, missionary and traveller, born in Scotland, 1813; died, 1873; worked in a cotton factory from ten to fourteen years of age, and attended a night class for the study of Latin the while. He determined to become a missionary, and studied medicine the better to equip himself. He joined the missionary society and was sent to Africa in 1841. Here in Bechuana he labored for several years, and he explored a vast section of the country westward to the Atlantic. He returned to England, and published his "Missionary Travels." In 1858 he was appointed chief of a government expedition to explore the Zambesi, which was productive of important results, and led to the publication of "The Zambesi and Its Tributaries." In 1865 he set out to help to solve a disputed question regarding the watershed of the Nile, in which he spent some years. Given up for lost, Mr. Bennett, of the "New York Herald," sent H. M. Stanley to find him, and he succeeded, but could not persuade him to return. He died among his faithful attendants. His body was sent to England, and buried in Westminster Abbey.

MARKHAM, CLEMENTS R., English geographer and author, born, 1830. Entered the navy in 1844. In 1863 was elected secretary to the Royal Geographical Society. Served in the Arctic Expedition in search of Sir John Franklin. Explored Peru and the Eastern Andes. Introduced the cinchoni plant from South America into India, was in the Abyssinia Expedition, and was present at the storming of Magdala. He has written "A Grammar of the Inca Language," "The Threshold of the Unknown Region," "The War Between Chili and Peru," "Missions to Thibet," and a "Life of John Davis."

MARQUETTE, FATHER JAMES, French missionary, born, 1637; died, 1675. Sailed for Canada in 1666. He spent his life in going about among and preaching to the Indians, and wrote an account of his journeyings with Joliet in his "Discovery and Exploration of the Mississippi." It is said that the log hut in which he dwelt on

the shores of Lake Michigan was the first human dwelling set up on what is now the site of Chicago.

MEMBRÉ, FATHER ZENOBIUS, French missionary, born, 1645; died, 1687. Was with Lasalle on his Westward Expedition, and descended the Mississippi with him. He wrote a work entitled "The Establishment of the Faith in New France." He and his companion were massacred in Fort St. Louis, Texas.

OJEDA, ALONSO DE, Spanish adventurer, born, 1465; died about 1815. He accompanied Columbus on his second voyage. He went on several voyages to Northern South America, discovered and named Venezuela, and established a trade in Indian slaves. His last expedition was wrecked; and he passed his later years in misery, dying, finally, in consequence of a wound from a poisoned arrow.

PHILIPS, MILES, English mariner, flourished about 1537. Was with Hawkins in his voyage of 1568, and sailed with Drake in 1583. Shipwrecked and imprisoned by the Spanish governor at Panuco, he was sent to Mexico, and endured frightful hardships. After five years he escaped, and through many adventures contrived to reach England again.

PINSON, V. Y., Spanish navigator, born about 1460; died about 1524. Contributed to the expenses of the expedition of Columbus, and was appointed commander of La Niña. He was the first to discover Brazil, on a subsequent voyage under his own command, and on a later one, Yucatan and the Bay of Campeachy. On another voyage he explored the shores of Brazil, and, returning, gave up navigation, and settled in his native town, where he died.

POLO, MARCO, the greatest traveller of the Middle Ages, born in Venice, 1254; died, 1324. He started on his travels with his father and uncle in 1271, going by Sirus, Mosul, Bagdad, through Khorassan, up the Oxus to the Pamir by Kahgar, across the desert of Gobi to Tangut, and thence to Shanghai. There he learned the customs and language of the Moguls, and thence he explored Thibet, parts of Burma, Cochin China, and Southern India. For three years he was governor of Yang-Chow. After long travel and much delay they returned to Venice about 1295, and like Ulysses they were not recognized by their kindred. In 1298 he fought in the battle of Curzola, and was taken prisoner. While in prison he dictated the account of his voyages to a fellow prisoner. His book is poor in information, and is full of imagination and extravagance, and much of it is fabulous and founded on hearsay, but it is curious and interesting reading.

RALEIGH, SIR W., the famous English seaman, was born in 1552, and died on the scaffold, 1618. He was well educated, and a favorite at the Court of Queen Elizabeth. He fitted out several expeditions to explore the coast north of Florida and to colonize Virginia. In 1595 he explored the coasts of Trinidad and sailed up the Orinoco. Returned to England, and published his "Discovery of the Large, Rich, and Beautiful Empire of Guiana." He also wrote a "Relation of Cadiz Action." Owing to Court intrigues he fell from favor, and was condemned to death. For some years he lay in prison, and while in confinement wrote "The History of the World," "The Prerogative of Parliament," and some other political works. In 1616 he was released, and went on an expedition in quest of gold to the Orinoco. This was a failure. The old charges against him were renewed, and he was executed on the old sentence. He met his death with wonderful bravery.

SCHLIEMANN, HENRY, the excavator of the buried cities of Greece, — Troy and Mycenæ, — born in Germany, 1822; died, 1890. He made a fortune in business, and then devoted his life to the work of exploring these sites, which he began to do in 1870. He made some wonderful discoveries, which are most interesting to read about in this his chief work, "Ilios."

SHEA, JOHN D. GILMARY, American historian, born, 1824; died, 1892. He began to write when fourteen years old, and to collect materials relating to the history of the Catholic Church in the United States, of which he lived to see the publication of all but the last volume. He was editor of *The Catholic News*.

SOTO, DE, FERNANDO, Spanish discoverer, born about 1496, and died on the bank of the Mississippi in 1542. In 1528 he explored the coasts of Guatemala and Yucatan for seven hundred miles. He later joined Pizarro in his expedition to Peru. Afterwards he was made Governor of Cuba. His life was sacrificed to the Spanish insatiable thirst for gold. He was buried in the waters of the Mississippi.

TASMAN, ABEL JANS, discoverer of Tasmania, born about 1602; died, 1659. He was sent by Van Diemen, the Governor-General of the Dutch settlement in Batavia, to search for the great South Land, to which he gave his name, in 1642.

VERRAZANO, JOHN DE, Florentine navigator, born in 1470; died, 1527. He entered the French maritime service at twenty-five, and was employed in voyages of discovery. Later he was employed in ravaging the Spanish and Portuguese possessions in the East and West Indies, and became a famous corsair. He was sent in 1523 to explore the coast of North America, landed at a point near Cape Fear, and discovered New York and Narragansett bays. He wrote a memoir relating his discoveries, of which he gave a very confused description.

VESPUCCIO, AMERIGO, a naval astronomer, born at Florence, 1451; died in 1512. He fitted out Columbus' third fleet. In 1503 discovered All Saints Bay, on the coast of Brazil. In the Cosmographical Introduction, by Martin Waldseemüller (1507), part of his name was proposed for the New World, because from an inaccurate account of his travels he is represented as having reached the mainland two years before Columbus.

WINSHIP, GEO. P., author, librarian in charge of John Carter Brown Library, born, 1871, in Bridgewater, Mass., is the author of "The Coronada Expedition," "John Cabot," "Geoffrey Chaucer," "Early Mexican Painters," etc.

FAMOUS EXPLORERS

SUGGESTIONS FOR SUPPLEMENTARY READING

Columbus
Cortez
Ferdinand de Soto
J. S. C. Abbott

Sir John Franklin
A. H. Beesly

Captain Cook: Life and Voyages
Walter Besant

Story of Magellan
Hezekiah Butterworth

The Land of the Long Night
The Land of the Midnight Sun
Paul Du Chaillu

The Romance of Navigation
Henry Frith

Half Hours with Early Explorers
Thomas Frost

Tales of the Pathfinders
Arthur Gilman

Explorers and Travellers
A. W. Greeley

Book of American Explorers
Thomas W. Higginson

Captain John Smith
G. C. Hill

David Livingstone
Thomas Hughes

The World's Discoverers
William H. Johnson

Farthest North
F. Nansen

La Salle and the Discovery of the Great North
Francis Parkman

My Arctic Journal
Josephine D. Peary

William Dampier
W. Clark Russell

Westward with Columbus
Gordon Stables

How I Found Livingstone
Through the Dark Continent
Henry M. Stanley

Raleigh
Vasco da Gama
George M. Towle

Life of J. C. Frémont
F. C. Woodworth

Great Explorers of the Nineteenth Century
Jules Verne

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